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The Massachusetts Medical Society

PROCEEDINGS OF THE COUNCIL

Stated Meeting, February 5, 1930

A STATED MEETING of the Council was held in John Ware Hall, Boston Medical Library, February 5, 1930, at 12 o'clock noon, the President, Dr. Robert B. Greenough, of Boston, being in the chair and the following 126 Councilors present:

BARNSTABLE
W. D. Kinney

BERKSHIRE
H. J. Downey

BRISTOL NORTH
A. R. Crandell

BRISTOL SOUTH
E. F. Cody
D. J. Fennelly
E. D. Gardner
Charles Shanks
Russell Wood

ESSEX NORTH
R. L. Toppan
E. S. Bagnall
J. F. Burnham
H. F. Dearborn
A. P. George
T. R. Healy
F. S. Smith
F. S. Snow
G. T. Stokes

ESSEX SOUTH
J. A. Bedard
C. L. Curtis
J. F. Donaldson
E. B. Hallett
W. T. Hopkins
J. F. Jordan
C. H. Phillips
A. N. Sargent
R. E. Stone

FRANKLIN
H. G. Stetson

HAMPDEN
J. M. Birnie
H. B. Chase
W. J. Dillon
S. A. Mahoney
A. G. Rice
J. P. Schneider

HAMPSHIRE
F. H. Smith

MIDDLESEX EAST
A. R. Cunningham
C. E. Montague
F. L. Smalley

MIDDLESEX NORTH
J. H. Lambert
G. A. Leahey
T. A. Stamas

MIDDLESEX SOUTH
Fresenius Van Nüys
C. F. Atwood
C. F. K. Bean
E. H. Bigelow
A. H. Blake
W. T. Burke
D. F. Cummings
F. G. Curtis
I. J. Fisher
C. B. Fuller
Cora E. Harriman
Josephine D. Kable
Edward Mellus
C. E. Mongan
J. P. Nelligan
Dwight O'Hara
W. A. Putnam
H. L. Seavey
C. H. Staples
E. H. Stevens
A. K. Stone
W. S. Whittemore
H. J. Walcott

NORFOLK
S. F. McKeen
F. J. Bailey
F. G. Balch
D. N. Blakely
F. A. Bragg
W. L. Burrage
T. J. Coyne
F. P. Denny
C. B. Faunce, Jr.
C. S. Francis
W. A. Griffin
J. B. Hall
W. C. Kite
E. B. Lane
W. A. Lane
Olga C. Leary
W. R. Ohler
Frederick Reis
H. B. C. Riemer
Victor Safford
H. F. R. Watts
W. A. White
W. H. Young

NORFOLK SOUTH
C. S. Adams
T. B. Alexander
N. R. Pillsbury
C. A. Sullivan

PLYMOUTH
T. H. McCarthy
W. G. Brown
J. J. McNamara
G. A. Moore
J. P. Shaw
A. C. Smith

SUFFOLK
Lincoln Davis
A. W. Allen
A. E. Austin
J. W. Bartol
W. J. Brickley
J. E. Briggs
David Cheever
A. L. Chute
R. C. Cochrane
W. P. Cross
G. S. Derby
R. L. DeNormandie
R. B. Greenough
J. B. Hawes, 2d
E. P. Joslin
L. S. McKittrick
W. R. Sisson
Conrad Wesselhoeft

WORCESTER
W. E. Denning
J. C. Austin
W. P. Bowers
L. R. Bragg
G. E. Emery
E. L. Hunt
A. M. Shattuck
R. P. Watkins
F. H. Washburn
S. B. Woodward

WORCESTER NORTH
F. R. Dame
W. E. Currier

The Secretary read the minutes of the last meeting in abstract and, as no omissions or corrections were noted they were accepted as read and as printed in the Proceedings of the Council in the *Journal*. The Chair read the following obituaries of three Councilors who had died while yet in office:

LESTER COLWELL MILLER, M.D.

Lester Colwell Miller, of Worcester, Vice-president of the Massachusetts Medical Society, died at his home in Worcester, on November 7, 1929.

Dr. Miller was born in Rockport, Maine, on May 15, 1867. He was a student at Colby University and graduated from the Harvard Medical School in the class of 1895. After two years study abroad, he made his home in Worcester, where he held many hospital staff appointments of increasing importance until he became the Senior member of the Medical Staff of the Memorial Hospital. He has been a Councilor of the Massachusetts Medical Society and was Chairman of the Medical Section before his election as Vice-president in June 1929. Dr. Miller belonged to a number of medical societies and to many social and fraternal organizations. His service as a Consultant in Internal Medicine was highly prized, and he served the Massachusetts Medical Society faithfully and well for many years.

EVERETT ALANSON BATES, M.D.

Everett Alanson Bates, died at his home in Springfield, on January 24, 1930.

Dr. Bates was born in Connecticut in 1860. He took his A.B. degree from Yale in 1886, and his M.D. degree from Harvard in 1889. He was a House Officer

at the Massachusetts General Hospital and the Boston Lying-in Hospital. He began his practice in Springfield in 1892, where he held many important hospital positions before he became Senior member of the Visiting Staff of the Springfield Hospital. In 1910, he became a Trustee of the Springfield as well as of the Wesson Maternity Hospital. He also served his city in many offices, such as that of Medical Examiner, and later on the District Exemption Board, and as Chairman on Hygiene and Sanitation of the Springfield Committee of Public Safety. Dr. Bates was a member of the Massachusetts Medical Society and of many other medical societies and social organizations. He was a Councilor and had been orator of this Society and took a leading part in its activities. A wise consultant, he was held in great esteem by his colleagues not only for his medical skill but for his charming and lovable personality. He wielded a great influence for good in the medical profession and throughout the community in which he lived.

EDWARD NORTON LIBBY, M.D.

Edward Norton Libby died at his home in Jamaica Plain, on November 5, 1929.

Dr. Libby was born at Limington, Maine, on July 16, 1868. He was a graduate of Dartmouth College in 1892, and of Dartmouth Medical School in 1895, where he was a brilliant student. He began his practice in Roxbury, and through all of his life was connected with the Boston City Hospital, where he rose through various staff appointments until he became the Senior member of the Visiting Medical Staff. During a large part of this time he was associated with the Tufts College Medical School as Instructor, Assistant Professor, and in 1925, Professor, and head of the Department of Theory and Practice of Medicine. He served his country on the Examining Board during the World War, and helped with his experience in the conduct of the Industrial Accident Board of Massachusetts. For the past ten years his energies were devoted largely to consultation work. He served the Massachusetts Medical Society as a Councilor, and held that office at his death.

He was a strong influence for good in his profession and in his hospital and civic relations. He was a born teacher and indefatigable worker. He was beloved by all who came in contact with him, not only for his professional ability, but for his strong personality and strength of character.

Dr. D. N. Blakely, Chairman, read the report of the Committee on Membership and Finance, on Membership, and it was accepted and its recommendations adopted by motion, duly seconded and by unanimous vote.

REPORT OF COMMITTEE ON MEMBERSHIP AND FINANCE ON MEMBERSHIP

Your Committee makes the following recommendations as to membership:

1. That the following named twelve Fellows be allowed to retire as of December 31, 1929, under the provisions of Chapter I, Section 5, of the By-Laws:

1. Ahlstrom, Hjalmar, Quincy.
2. Bangs, Charles Howard, Swampscott.
3. Briggs, Frederic Melancthon, Pocasset.
4. Hamilton, Annie Lee, Sandwich.
5. Jack, Ernest Sanford, Melrose.
6. Jones, Mary Scott, Boston.
7. McLaughlin, Henry Valentine, Brookline, with remission of dues (1928, 1929).
8. Murphy, Emily Frances, Taunton.
9. Payne, James Henry, Allston.
10. Proctor, Francis Ingersoll, Santa Fe, N. M.
11. Reed, William Gilman, Southbridge.
12. Tupper, Augustus Maclauchlan, Rockport.

and the following two Fellows as of December 31, 1930.

1. Cobb, Oliver Warren, Easthampton.
2. Ward, George Otis, Worcester.

2. That the dues for 1930 of the following named four Fellows be remitted under the provisions of Chapter I, Section 6, of the By-Laws:

1. Beaulieu, Francis Xavier, Taunton.
2. Bush, Arthur Dermont, Decatur, Georgia.
3. Devenny, Joseph Henry, Dorchester.
4. Donahue, William Francis, Watertown.

3. That the following named six Fellows be allowed to resign, as of December 31, 1929, under the provisions of Chapter I, Section 7, of the By-Laws:

1. Gordon, Faith Fairfield, Greensboro, N. C., with remission of dues (1929).
2. Johnson, Linwood Hill, Westerly, R. I., with remission of dues (1928, 1929).
3. LaMoure, Charles Ten Eyck, Mansfield Depot, Conn.
4. Livingston, Clarence Bertram, San Antonio, Texas.
5. Osterheld, Roger Golden, Stoughton, Wis., as of December 31, 1930.
6. Robie, Alice Hatheway, Tucson, Arizona.

4. That the following named Fellow be deprived of the privileges of fellowship, under the provisions of Chapter I, Section 8, (a), of the By-Laws:

1. Murphy, Brendan William, Brockton.

5. That the following named eleven Fellows be allowed to change their membership from one District Society to another without change of legal residence, under the provisions of Chapter III, Section 3, of the By-Laws:

Six from Middlesex South to Suffolk

1. Beetham, William Parkes, Newton Center.
2. Lund, Fred Bates, Newton Center.
3. Saphirstein, Hyman, Brighton.
4. Vogt, Edward Charles, Brighton.
5. Williamson, (Helen) Lucile, Waverley.
6. Yaffe, Joseph Philip, Brighton.

Two from Norfolk to Suffolk

1. Denning, Edward John, Brookline.
2. Johnson, Warren, Roslindale.

One from Norfolk South to Plymouth

1. Buck, William Edgar, Randolph.

One from Suffolk to Middlesex South

1. Pavlo, Samuel George, Malden.

One from Bristol North to Plymouth

1. Porter, Robert Brastow, North Easton.

6. That the Massachusetts Medical Society, in accordance with the By-Laws of the American Medical Association, nominate and recommend for Affiliate Fellowship in the American Medical Association, two retired Fellows, namely,

1. Burns, Hiram Hutchins, Plymouth.
2. McLaughlin, Henry Valentine, Brookline.

DAVID N. BLAKELY, *Chairman.*

The Secretary read the reports of the committees appointed to consider the petitions of S. J. Benoit, G. J. Rubin and E. S. Dow. Each report was acted on separately and each accepted under the usual conditions, namely that the petitioner be restored to the privileges of fellowship provided he pay whatever he owed the Society at the time of his deprivation plus the dues for the current year within one month

of the date of this meeting. The committee appointed to consider a similar petition from Socrates J. Paul, of Albany, N. Y., reported that it did not recommend his restoration and the report was accepted by vote. A similar petition from Bertha C. Olson was read and the following members of the Worcester District appointed to consider it:

P. H. Cook
B. H. Alton
Winifred M. Grant

To consider a similar petition of L. A. Byrnes were appointed the following from the Hampden District:

G. D. Henderson
E. A. Knowlton
G. L. Gabler

The Chair nominated and the Council appointed the following delegates and alternates to the House of Delegates, American Medical Association, for the term of two years from June 1, 1930:

H. G. Stetson, Greenfield. Alternate, W. C. Leary, Springfield.
C. E. Mongan, Somerville. Alternate, L. S. McKittrick, Boston.
J. F. Burnham, Lawrence. Alternate, E. L. Hunt, Worcester.

Also these three delegates to the Annual Congress on Medical Education, Medical Licensure and Hospitals, at Chicago, February 17, 18 and 19, 1930: A. G. Howard, J. B. Howland and T. J. O'Brien, all of Boston. Likewise these delegates to the annual meetings of the medical societies of the five New England States:

Maine: G. W. Holmes and G. R. Minot, both of Boston.
New Hampshire: J. H. Lambert, Lowell; J. M. Birnie, Springfield.
Vermont: G. P. Hunt, Pittsfield; F. R. Ober, Boston.
Rhode Island: R. W. French, Fall River; D. F. Jones, Boston.
Connecticut: G. D. Henderson, Holyoke; F. B. Sweet, Springfield.

The Treasurer, Dr. A. K. Stone, read his annual report as well as the report of the Auditing Committee and the letter of the Certified Public Accountants. (See Appendix No. 1.) He discussed these briefly and on motion, duly seconded, they were accepted by vote.

Dr. D. N. Blakely, Chairman, read the report of the standing Committee on Membership and Finance, on Finance, namely the Budget for the Society year 1930. (See Appendix No. 2.) Dr. Blakely explained several items in the Budget and expressed the hope that the dues would be paid promptly this year. The report was accepted without dissent.

Dr. F. G. Balch, Chairman, read the report of the Committee on Malpractice Defence and it was accepted without discussion. (See Appendix No. 3.)

In the absence of Dr. Homer Gage, Chairman, Dr. J. W. Bartol and the Secretary were called on for a report from the Committee on Publications and it was learned that Dr. Carroll E. Edson, of Denver, Colorado had written that he would be unable to deliver the Shattuck Lecture in 1930 and that the committee had selected Dr. W. Irving Clark of Worcester to take his place. Dr. Clark had accepted and will talk on "Industrial Medicine and Public Health."

Dr. Shields Warren read the report of the standing Committee on State and National Legislation (See Appendix No. 4) and it was accepted as read. Dr. T. J. O'Brien presented the report on the Permanent Home Fund (See Appendix No. 5) and this was accepted without discussion.

Dr. H. Quimby Gallupe of the standing Committee of Arrangements, reported for that committee because the chairman, Dr. E. P. Hayden, had suffered an accident and could not be present. Dr. Gallupe had visited Plymouth the previous day and had found that the local committee of arrangements had prepared an attractive program. The entire activities of the meeting, except a clambake and the Cotting Lunch, could be housed in the Memorial Hall, a new building centrally situated near the railway station. The hotels are too small to serve as headquarters but those intending to stay overnight were urged to secure accommodations at one of the hotels, of which the Samoset and Plymouth Rock houses could accommodate about 110 and the Mayflower and Pilgrim together, 250. Following the Shattuck Lecture on Tuesday evening in Memorial Hall there would be a ball in the same building. Parking space behind the hall would care for 300 cars. The meeting would close with a clambake in an enormous tent back of the hall at 5:30 p. m. on Wednesday, June 18. It was planned to have a good sized commercial exhibit either in the Memorial Hall or in the Armory across the street. Full details would appear in the official program, to be issued on May 17.

The Chair spoke of the approaching one hundred and fiftieth anniversary of the founding of the Massachusetts Medical Society in 1931 and thought that a committee should be appointed to consider the preparations to celebrate that event and to plan the exact nature of the features of the celebration. He called on Secretary Burrage, who spoke of the celebration at the one hundredth anniversary in 1881, when the program was elaborate and there were present at the functions a great many distinguished men from near and far; he favored making definite plans at an early date, as only in this way could a successful celebration be obtained; he thought that a committee should be appointed at this meeting. On motion, duly seconded, it was voted that the President appoint a committee to make plans for and arrange a suitable celebration of the one hundred and fiftieth anniversary of the Massachusetts Medical Society in 1931. In accordance with this vote the Presi-

dent appointed this committee, the names being arranged alphabetically:

John W. Bartol	Joseph Garland
Enos H. Bigelow	Fred B. Lund
John M. Birnie	L. S. McKittrick
Walter P. Bowers	G. C. Shattuck
Walter L. Burrage	Henry R. Viets
David Cheever	Samuel B. Woodward
H. Quimby Gallupe	Alfred Worcester

Dr. S. B. Woodward spoke of the attendance before committees of the Legislature, at hearings on bills affecting the public health, referring more particularly to the approaching hearing on the vaccination bills. He thought that a large showing of members of the medical profession at the State House had a beneficial effect on the committee which conducts a hearing. He was supported in this view by Dr. E. H. Bigelow, a former legislator, and by Dr. C. E. Mongan, who had appeared at many hearings at the State House during the last ten years. The Chair queried how much mere numbers counted at such hearings as it is well known that all sorts of impossible bills crowded the hearings with their advocates; he had talked with a representative who thought that the appearance before a committee of someone who was well informed on the subject and knew how to express himself was of more importance than the number of those who appeared. Of course, the Committee on State and National Legislation, of which he was chairman, wished to assist in every way possible, the advancement of bills which were advocated by Fellows. Dr. Victor Safford explained the purport of some of the pending bills on vaccination. Dr. Woodward said, that in his experience, physicians do not attend hearings in any great number. Dr. J. W. Bartol said that it had been his experience that a Legislative committee welcomed remarks on the topic under discussion from a person who was versed in it, no matter which side he espoused; he thought that a showing of hands by the spectators in a committee room had little weight with the members of the committee, but that the recording of the names of those present, even if the attendant could not stay until the end of the hearing, had a helpful effect. He was sorry that more emphasis had not been placed at this meeting of the Council on the aid to be obtained by a social discussion of the health bills before the Legislature with the local legislators in the different district of the State, a move inaugurated by Plymouth District last year. He thought that more good could be accomplished in the woods than up under the Gilded Dome; certainly Plymouth had set us a good example which ought to be followed by the other District Medical Societies.

There being no further business it was moved, seconded and voted to adjourn, at 1:15 o'clock.

WALTER L. BURRAGE, *Secretary.*

APPENDIX TO THE PROCEEDINGS OF THE COUNCIL

APPENDIX NO. 1

REPORT OF THE AUDITING COMMITTEE

Boston, December 4, 1929.

Your Committee has examined the securities of the Massachusetts Medical Society, and finds them to be as scheduled in the Treasurer's Report.

(Signed) C. H. HARE,
CHARLES S. BUTLER.

LETTER OF THE CERTIFIED PUBLIC ACCOUNTANTS

February 4, 1930.

Dr. C. H. Hare
Dr. Charles S. Butler Auditing Committee of the Massachusetts Medical Society
Boston, Mass.

Gentlemen:

At the request of your Treasurer, Dr. Arthur K. Stone, we have audited the books and accounts of the Massachusetts Medical Society for the year ended December 31, 1929 and submit herewith the following statements:

Schedule A	Statement showing the Assets and Liabilities of the Massachusetts Medical Society, December 31, 1929
Schedule B	Statement showing the Current Account of the Massachusetts Medical Society for the twelve months ended December 31, 1929
Schedule C	Statement showing the Reconciliation between the Profit and Loss and the Budget for the twelve months ended December 31, 1929

The cash on deposit in the banks has been reconciled with the bank statements and found correct. All known cash receipts have been properly entered on the books and vouchers, or cancelled checks were found to support all disbursements.

The Building Fund has been incorporated in this statement and is shown in Schedule A.

The securities as shown in Schedule A have been examined by you as Auditing Committee, as stated in your certificate of December 4, 1929.

The attached statement showing the financial condition of the Society on December 31, 1929 is true to the best of our knowledge and belief.

Respectfully submitted,

(Signed) HARTSHORN AND WALTER,
Certified Public Accountants.

TREASURER'S REPORT

SHOWING THE ASSETS AND LIABILITIES OF THE
MASSACHUSETTS MEDICAL SOCIETY
DECEMBER 31, 1929

SCHEDULE A

ASSETS

Cash:			
First National Bank of Boston		$4,267.34	
New England Trust Co.		3,423.03	
			$7,690.37
Endowment Funds:			
Shattuck Fund:			
Annuity Policy Mass. Hospital Life Ins. Co.		$9,166.87	
Phillips Fund:			
Commonwealth of Massachusetts 3½'s 1938		10,000.00	
Cotting Fund:			
Deposit in Institution for Savings in Roxbury and its vicinity	$1,000.00		
Deposit in Provident Institution for Savings in the town of Boston	1,000.00		
Deposit in Suffolk Savings Bank for Seamen and others in Boston	1,000.00		
		3,000.00	
			22,166.87
Building Fund:			
Deposit in Framingham National Bank		624.44	
$5000 Canadian National Ry. 5's 1969		4,950.00	
5000 Conveyancers Title Insurance Mtge. Co. 5½% Parti-Mortgage due Oct. 31, 1934		5,000.00	
5000 Chicago & R. I. & Pacific 4's 1934		4,735.00	
2000 Northern Ohio Traction Co. 6's 1947		1,886.50	
2000 N. Y. Chicago & St. Louis 6's 1969		2,000.00	
			19,195.94
General Fund:			
Deposit in Franklin Savings Bank in the City of Boston		$1,074.48	
$1000 American Sugar Refining Co. 6's 1937		988.25	
1000 American Tel. & Tel. Co. 5½'s 1943		985.00	
3000 Appalachian Electric Power Co. 5's 1956		2,910.00	
3000 Cedar Rapids Mfg. & Power Co. 5's 1953		2,805.00	
3000 Central Power & Light 5's 1956		2,730.00	
3000 Commonwealth of Australia 5's 1955		2,985.00	
4000 Commonwealth of Massachusetts 3½'s 1935		4,000.00	
1000 Commonwealth of Massachusetts 3½'s 1938		1,000.00	
2000 Conveyancers Title Insurance & Mtge. Co. 5½% Parti-Mortgage due Dec. 1, 1932		2,000.00	
3000 Dayton Power & Light 5's 1941		2,797.50	
2000 Great Northern Ry. Co. 5½'s 1952		1,932.50	
3000 International Paper Co. 6's 1955		3,076.00	
3000 Mallory S.S. Co. 5's 1932		2,760.00	
2000 Metropolitan Ice Co. 7's 1954		2,100.00	
1000 N. Y. Chicago & St. Louis R.R. 6% Note 1932		1,000.00	
4000 Public Service Co. No. Ill. 5's 1956		3,640.00	
3000 Toledo Edison Co. 5's 1947		2,805.00	
3000 U. S. Cold Storage Co. 6's 1945		3,000.00	
3000 U. S. Guarantee Title & Trust Co. 5½'s 1936		3,000.00	
5200 U. S. Liberty Bonds 4th 4¼'s		5,043.23	
2000 U. S. Rubber Co. 5's 1947		1,735.50	
3000 Wilson & Co. 1st 6's 1941		3,006.00	
			57,373.46
New England Journal of Medicine			1.00
Total			$106,427.64

LIABILITIES

Endowment Funds:		
Shattuck Fund:		
G. C. Shattuck 1854 Balance 1866	$9,166.87	
Phillips Fund:		
Jonathan Phillips 1860	10,000.00	
Cotting Fund:		
B. E. Cotting $1000—1876, 1881, 1887	3,000.00	
		$22,166.87
Building Fund		19,195.94
General Fund Account—Exhibit 1		65,064.83
Total		$106,427.64

GENERAL FUND ACCOUNT
DECEMBER 31, 1929

SCHEDULE A—EXHIBIT 1

Balance, January 1, 1929 (Credit)	$66,216.47	
Add,—Profit on Sale of $1,000 U. S. Steel 5's 1963	91.00	
Profit on Sale of $1,000 American Sugar Refining Co. 6's 1937	55.75	
		$66,363.22
Deduct,—Deficit for the Twelve Months ended December 31, 1929—*Schedule B*		1,298.39
Balance, December 31, 1929		$65,064.83

STATEMENT

SHOWING THE CURRENT ACCOUNT OF THE MASSACHUSETTS MEDICAL SOCIETY FOR THE TWELVE MONTHS ENDED DECEMBER 31, 1929

SCHEDULE B

REVENUE

Assessments Received by District Treasurers:			
Barnstable		$288.00	
Berkshire		760.00	
Bristol North		520.00	
Bristol South		1,528.00	
Essex Nortn		1,128.00	
Essex South		1,456.00	
Franklin		280.00	
Hampden		2,096.00	
Hampshire		432.00	
Middlesex East		712.00	
Middlesex North		960.00	
Middlesex South		4,848.00	
Norfolk		4,746.00	
Norfolk South		696.00	
Plymouth		912.00	
Suffolk		5,758.00	
Worcester		3,112.00	
Worcester North		128.00	
			$30,360.00
Assessments Received by Treasurer			2,630.37
Total Assessments			$32,990.37
Income from Shattuck Fund		$458.34	
Income from Phillips Fund:			
Massachusetts 3½'s 1938		350.00	
Income from Cotting Fund:			
Interest—Institution for Savings in Roxbury and its Vicinity	$47.50		
Interest—Provident Institution for Savings in the Town of Boston	45.00		
Interest—Suffolk Savings Bank for Seamen and others in Boston	45.00		
		137.50	
Income from General Fund:			
Franklin Savings Bank in the City of Boston	$51.02		
American Sugar Refining Co. 6's 1937	90.00		
American Tel. & Tel. Co. 5½'s 1943	55.00		
Appalachian Electric Power Co. 5's 1956	150.00		
Cedar Rapids Mfg. & Power Co. 5's 1953	150.00		
Central Power & Light 5's 1956	75.00		
Commonwealth of Australia 5's 1955	150.00		
Conveyancers Title Insce. & Motge. Co. 5½'s 1934	110.00		
Dayton Power & Light 5's 1941	150.00		
Great Northern Ry. Co. 5½'s 1952	110.00		
Guarantee Title & Trust Co. 5½'s 1936	165.00		
International Paper Co. 6's 1955	180.00		
Mallory S. S. Co. 5's 1932	150.00		
Massachusetts 3½'s 1938	175.00		
Metropolitan Ice Co. 7's 1954	140.00		
Public Service Co. No. Ill. 5's 1956	200.00		
Toledo Edison Co. 5's 1947	150.00		
U. S. Cold Storage Co. 6's 1945	180.00		
U. S. Liberty Bonds 4th 4¼'s	221.00		
U. S. Rubber Co. 5's 1947	100.00		
U. S. Steel 5's 1963	50.00		
Wilson & Co. 6's 1941	180.00		
		2,982.02	

Income from Deposits in Bank:			
New England Trust Co.		$239.68	
Old Colony Trust Co.		201.55	
			441.23
			4,369.09
Total Revenue			$37,359.46

EXPENSES

Salaries:			
Secretary		$2,500.00	
Treasurer		500.00	
Assistant to President		4,166.66	
			$7,166.66
Expenses of Officers and Delegates:			
President and Vice President		$271.81	
Secretary		968.64	
Treasurer		132.75	
District Treasurers		1,737.36	
Censors		496.90	
Delegates (A. M. A.)		1,769.90	
Delegates to New England Medical Council		55.00	
			5,432.36
General Expenses:			
Rent Boston Medical Library		$1,200.00	
Shattuck Lecture		200.00	
Cotting Lunches		246.50	
Miscellaneous Expenses		2.82	
Committee Room:			
Rent	$825.96		
Salaries	800.00		
Telephone	132.67		
Light	12.72		
Janitor	52.00		
Miscellaneous	163.11		
		1,986.46	
			3,635.78
Standing Committees:			
Arrangements		$1,099.36	
Publications:			
New England Journal of Medicine	$15,000.00		
"Complete Catalogue of 1931"	133.01		
		15,133.01	
Membership and Finance		8.40	
Ethics and Discipline		25.00	
Medical Education and Medical Diplomas		131.16	
State and National Legislation		533.24	
Public Health		463.91	
Malpractice Defense		794.64	
			18,188.72
Special Committees:			
Board of Trial		$104.00	
Clinics and Health Associations		63.50	
			167.50
Dividends to District Societies			4,000.00
Accrued Interest on Securities Purchased			66.83
Total Expenses			38,657.85
Deficit			$1,298.39

(Signed) ARTHUR K. STONE, *Treasurer.*

MASSACHUSETTS MEDICAL SOCIETY
RECONCILIATION
BETWEEN THE PROFIT AND LOSS ACCOUNT AND THE BUDGET
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 1929

SCHEDULE C	Profit and Loss Account	Budget Estimated at Feb., 1929 Meeting	Difference Under Estimated	Difference Over Estimated
REVENUE:				
Assessments	$32,990.37			
Income from Investments	3,927.86			
Interest on Bank Deposits	441.23			
Total Revenue	$37,359.46	$38,500.00		$1,140.54
EXPENSES	38,657.85	46,025.00		7,367.15
Deficit	$1,298.39	$7,525.00		$6,226.61
SUMMARY OF EXPENSES:				
Salaries:				
Secretary	$2,500.00	$2,500.00		
Treasurer	500.00	500.00		
Assistant to President	4,166.66	5,000.00		$833.34
Expenses of Officers and Delegates:				
President and Vice President	271.81	500.00		288.19
Secretary	968.64	700.00	$268.64	
Treasurer	132.75	400.00		267.25
District Treasurers	1,737.36	1,700.00	37.36	
Censors	496.90	600.00		103.10
Delegates (A. M. A.)	1,769.90	1,500.00	269.90	
Delegates to New England Medical Council	55.00	100.00		45.00
General Expenses:				
Rent—Boston Medical Library	1,200.00	1,200.00		
Shattuck Lecture	200.00	200.00		
Cotting Lunches	246.50	350.00		103.50
Committee Room Expenses	1,986.46	2,500.00		513.54
Miscellaneous Expenses	2.82		2.82	
Standing Committees:				
Arrangements	1,099.36	3,500.00		2,400.64
Publications:				
A. *New England Journal of Medicine*	15,000.00	15,000.00		
B. Directory		1,650.00		1,650.00
C. "Complete Catalogue of 1931"	133.01		133.01	
Membership and Finance	8.40	25.00		16.60
Ethics and Discipline	25.00	100.00		75.00
Medical Education and Medical Diplomas	131.16	200.00		68.84
State and National Legislation	533.24	500.00	33.24	
Public Health	463.91	300.00	163.91	
Malpractice Defense	794.64	3,000.00		2,205.36
Special Committees:				
Board of Trial	104.00		104.00	
Clinics and Health Association	63.50		63.50	
Dividends to District Societies	4,000.00	4,000.00		
Accrued Interest on Securities Purchased	66.83		66.83	
Total Expenses	$38,657.85	$46,025.00		$7,367.15
ADDITIONAL APPROPRIATIONS				
June, 1929 Tercentenary Guide		200.00		200.00
Tercentenary History		1,500.00		1,500.00
Oct., 1929 Obstetrics and Gynecology		100.00		100.00
Total	$38,657.85	$47,825.00		$9,167.15

APPENDIX NO. 2

REPORT OF COMMITTEE ON MEMBERSHIP AND FINANCE, ON FINANCE.
BUDGET FOR 1930

Your Committee recommends the following Appropriations

Salaries:		
Secretary	$2,500	
Treasurer	500	
Assistant to President	5,000	
		$8,000

Expenses of Officers and Delegates:		
President and Vice-President	$500	
Secretary	700	
Treasurer	300	
District Treasurers	1,700	
Censors	600	
Delegates to House of Delegates, A. M. A.	700	
Delegates to New England Medical Council	100	
		4,600
Rent Boston Medical Library	$1,200	
Shattuck Lecture	200	
Cotting Lunches	300	
Committeee Room Rent and Expenses	2,500	
		4,200
Standing Committees:		
Of Arrangements for Annual Meeting	$2,500	
Publications		
a. *New England Journal of Medicine*	15,000	
b. Annual Directory of Fellows	1,650	
c. "Complete Catalog of 1931"	200	
Membership and Finance	25	
Ethics and Discipline	100	
Medical Education and Medical Diplomas (including expenses of Delegate to annual Congress at Chicago)	200	
State and National Legislation (including expenses of Delegate to annual Congress at Chicago)	600	
Public Health	600	
Malpractice Defence	3,500	
		24,375
Special Committees:		
"To co-öperate with the Committee on the Massachusetts Bay Tercentenary, Inc."	$1,700	
Section of Obstetrics and Gynaecology	250	
		1,950
Dividends to District Societies		4,000
Total		$47,125
Income as Estimated by Treasurer		38,000
To be taken from General Fund		$9,125

DAVID N. BLAKELY, *Chairman.*

APPENDIX NO. 3.

REPORT OF THE COMMITTEE ON MALPRACTICE DEFENCE

The Committee has had no meeting since our last report. Your chairman and Dr. T. J. O'Brien, executive assistant to the president, have done most of the work in the last few months as there seemed no reason for calling the Committee together. This report has been sent to each of the members of the Committee and he has signed it.

Since the last meeting, Dr. O'Brien has been very active in investigating the testimony given in court in malpractice suits against Fellows. Most of the testimony which we have reviewed has been given in suits in the eastern part of the state and some cases have probably not been brought to our attention. I feel that as nothing has been said to us of unfair testimony, it is probable that in what suits there may have been in the western part of the state, the testimony has not been considered unfair. It will help us much in our work if all Fellows who are sued will notify the Committee when the trial takes place. It is our desire to review the testimony in the suits against members where there is any suggestion of unfairness on the part of a witness. In several cases we have had transcripts of the testimony of the various court stenographers made and both Dr. O'Brien and myself have read them through. It means a lot of work and considerable expense but I feel that it is worth it. If a doctor feels that his testimony is to be carefully gone over, he is not going to be so careless or so biased in his remarks as has been the case with some so-called expert witnesses. Six cases have been particularly carefully studied and while it may seem desirable to have one or two men called before the Ethics and Discipline Committee, most of the evidence given was such as might be given in any case where a man had a different opinion from another. In one case a doctor had his state registration suspended for a month. It is not our idea to try to prevent any doctor from giving his honest opinion in court in any case but we do think that he should at least be reprimanded by the Society if his testimony is not in accordance with the facts and is evidently biased. It is to be regretted that any doctor should be willing to testify against another merely for the fee which he gets for going to court but it is doubtful if this is a matter where the Society can interfere. It seems as if it were merely a matter of the doctor's own conscience and if that does not bother him, perhaps he is hopeless. The Society has referred a few cases to their attorneys, Storey, Thorndike, Palmer, and Dodge. There has been very little activity in these cases since our last meeting.

Your Committee as yet has taken no action on the matter of reconsidering the vote of the Council in opening up the insurance field to all companies. This was assigned to us at the last meeting of the Council. We wish merely to report progress at this time and shall probably report in June.

FRANKLIN G. BALCH, *Chairman,*
ARTHUR W. ALLEN,
FREDERICK B. SWEET,
ROYAL P. WATKINS,
EDWIN D. GARDNER.

APPENDIX NO. 4.

Report of the Committee on State and National Legislation

As in the past the committee has carefully considered all bills submitted which have any interest for the medical profession but has proposed to take definite action only on those bills which are of major importance. About 1320 bills were filed this year; of these 62 were of some interest to the medical profession. These have been classified as those of major importance and those of minor importance. The committee formally appears as representing the society only at hearings on those bills recorded as of major importance.

The committee met January 2, 1930 and voted to oppose Senate 8, asking that physicians be restricted in exercising their judgment in regard to operative procedure and also asking that the statute of limitations be extended to ten years in place of the present two years. Dr. R. B. Greenough appeared in opposition representing the Massachusetts Medical Society and the Massachusetts Homeopathic Medical Society, and Dr. Frank M. Vaughan appeared representing the Board of Registration in Medicine. "Leave to withdraw" was voted. It was also voted to oppose House 351 which proposes to create a department of public health. This bill was scheduled for hearing January 27 but has been continued to February 17.

With regard to the various bills introduced by the Commissioner of Mental Diseases, it was voted to take no action unless our support was requested.

On the various bills introduced by the Department of Public Health it was voted to take no action unless Dr. Bigelow requested our support.

As many of the bills had been filed but not printed, it was impossible for the committee to pass judgment upon them and it was voted that Dr. Greenough and Dr. O'Brien be authorized to study such bills and use their best judgment in favoring or opposing legislation.

The Board of Registration in Medicine feels that by re-registration, it can rid the state of many illegal practitioners. It seems that many men come from adjoining states and that there is no check-up on their legal status. We do not approve of the taxation of all the physicians in the state for the detection of comparatively few wrongdoers. This seems to be a problem for the state police and not for our profession.

Senate 229 is a petition restricting the Board of Registration in Medicine from inquiring into or interfering with the curriculum or management of any legally chartered medical school. The Board should not be restricted in this manner.

There are five bills concerning vaccination. We favor House 259, a bill which was drawn by Dr. Samuel B. Woodward. House Bill 452 asks that any person who, within the limits of this Commonwealth, inoculates any child or person with a virus or product that contains living germs of smallpox, or that is capable of causing smallpox, shall be required to pay a fine of one hundred dollars, or be imprisoned three months, or both, for each offense. This bill should be opposed as the physician has nothing to do with the manufacture of these preparations and should not be rendered liable for any possible error which may have occurred in a bacteriological laboratory.

The Plymouth District Medical Society entertained the legislators from their district at dinner and discussed with them the various matters at issue, thus giving an excellent opportunity for presenting the point of view of the members of the society. Undoubtedly such a procedure would be similarly worth while if tried by others of the constituent societies.

Respectfully submitted,

Shields Warren, *Secretary.*

APPENDIX NO. 5.

Report on the Permanent Home Fund

The Committee on Permanent Home consulted the authorities of the Boston Medical Library and learned from them that permanent quarters for the Massachusetts Medical Society would probably be ready within two years. At their request we changed the lease of the rooms at 165 Newbury Street from three to two years.

January 1, 1930 Permanent Home Fund on deposit at Framingham Trust Company amounted to $19,284.29.

The joint committee, representing the Academy of Medicine, Boston Medical Library, and the Massachusetts Medical Society, voted to continue the campaign until March 1.

At present the amount collected is $215,000.

Respectfully submitted,

Thomas J. O'Brien, M.D.,
Chairman, Committee on Permanent Home.

NEW ENGLAND SURGICAL SOCIETY

A COMPARATIVE STUDY OF BODY FLUIDS IN CANCEROUS AND NON-CANCEROUS INDIVIDUALS*

BY HERMAN C. PITTS, M.D.,† AND HELEN R. JOHNSON, M.A.†

I. Introduction

THIS investigation was undertaken to determine the relation between the calcium, potassium and sodium, and the pH of various fluids of cancer patients. Previous investigators have shown that serum calcium is often low in cancerous individuals; Remond, Sendrail and Lassalle (1925) in rabbits, and Krehbiel (1920) for humans, although Kreibel states that the average blood calcium values he obtained were within the figures generally accepted as normal. In the analyses of blood serum of Theis and Benedict (1924) for cancer patients the calcium is low, the potassium somewhat low, and the sodium normal; the more advanced cases having lower values for calcium, potassium and sodium than the earlier ones. Rourke (1927) states that for rats there is no physiological difference in the sodium content of the plasma of cancerous and non-cancerous animals. Clowes and Frisbie (1905) and others have found that in actively growing malignant tissue the calcium is low and the potassium high. Rohdenberg and Krehbiel (1922), however, report that in rapidly growing cancerous tissue the sodium is higher while the calcium and potassium are lower. In receding growths the calcium remains constant while the potassium and sodium increase.

The blood pH in cases of malignancy has been previously investigated with varying results. Remond, Sendrail and Lassalle (1925) report an acid condition during the growth of cancer in rabbits. Menten (1917) claims that the blood of cancerous individuals is more alkaline than normal. Millet (1929), using the glass electrode, shows that there is no difference in the pH of non-cancerous and cancerous blood. Lewis (1927) believes that because of the buffering action of the blood, any differences in pH would be detectable only near the site of growth. The tumor itself is, however, undoubtedly more acid than normal tissue, due to excess lactic acid in the blood around the growth, Cori and Cori (1925) (1928). Woglom (1924) studying the reaction of aqueous extracts of rat tumors found that they do not differ appreciably from similar extracts of normal tissue belonging to the same species. All examined were more alkaline than muscle and less alkaline than blood. Millet (1928), using the glass electrode, however, has shown that both cancerous tissue and embryonic tissue are more acid than normal adult tissue.

*Read at the Annual Meeting of the New England Surgical Society, Providence, R. I., September 28, 1929.

†Pitts—Surgeon-in-Charge of Cancer Service, Rhode Island Hospital. Johnson—Research Worker, Biological Laboratory of Brown University. For records and addresses of authors see "This Week's Issue," page 445.

II. Material

The body fluids used in these experiments were blood serum and blister fluid. The blister fluid was obtained in the following way. An area of about two square inches of adhesive plaster (on unglazed shirting) was covered with Cantharides (Spanish fly) blister paste. The plaster was then applied to the skin of the arm or the abdomen of the patient. After four hours the plaster was removed, the area being covered with a sterile box dressing. In from eight to twelve hours, about three or four cubic centimeters of blister fluid had formed, although in some cases there was as much as nine or ten cubic centimeters of fluid, and in other cases there was no reaction at all. The fluid was centrifuged before using to throw down the clot and the large number of leucocytes which were sometimes present.

III. Methods

A. *Calcium*

Calcium determinations were done on 1-2cc. of fluid. The Clark-Collip (1925) modification of the Kramer-Tisdall (1921) method was used. The saturated ammonium oxalate solution used for the precipitation was adjusted to a pH of about 5.0 by adding 0.1 N oxalic acid until the solution was faint pink when tested with methyl red. Shohl (1922) has shown that the pH is an important factor in the precipitation of calcium. The precipitated calcium was allowed to stand at least one hour before centrifuging.

B. *Potassium*

The method of Kramer and Tisdall (1921) was used to determine the potassium. Care was taken to add the sodium cobaltinitrite reagent very slowly. The precipitated potassium was allowed to stand three quarters of an hour before centrifuging. The potassium permanganate solutions for both the calcium and potassium determinations were standardized against 0.01N sodium oxalate each day that determinations were made.

C. *Sodium*

Rourke's (1928) modification of Kramer and Gittleman's (1924) iodometric method of sodium analysis was used. The alcohol at 10° C. was added very slowly to the mixture of serum and pyroantimonate solution, which had previously been cooled to 10°. The precipitation, centrifuging and titration in each case were done in a 50cc. centrifuge tube, thus preventing any loss of precipitate in transference. The sodium thiosulphate was standardized, before each set of

sodium determinations, against 0.1 N potassium biiodate.

D. pH

Blood pH determinations were done by the electrometric method. Blood was taken from the arm vein into a clean syringe and put directly under neutral paraffin oil in a 15cc. centrifuge tube, without coming in contact with the air. The tube was stoppered and centrifuged for ten minutes. The clear serum above the precipitated red blood cells was run, by means of a mercury manometer, into a hydrogen filled McClendon (1916) glass electrode, containing a platinum plated electrode (Popoff, Kunz and Snow, 1928) and a small thermometer (Cullen, 1922). The serum nearly filled the smaller chamber and about half filled the larger one. The electrode was rocked for about ten minutes and readings were then taken. The hydrogen electrode had in all cases been standardized against a standard phosphate buffer solution of pH 7.20 or pH 7.40. (Clark, 1928). e was determined at 20° C., using a 0.1 N HCL solution obtained from a constant boiling mixture (Hulett and Bonner 1909). This 0.1 N HCL was assumed to have a pH of 1.080 (Hastings, Murray and Sendroy 1927).

Since the .electrometric method above described required about 5 cc. fluid, it could not be used for blister fluid where only 2-3 cc. of fluid sometimes obtained. At first the pH determinations were done by the LaMotte Spot Plate method (Brown, 1923). Both phenol red and brom thymol blue were used as indicators. The brom thymol blue readings were consistently 0.2-0.3 of a pH lower than the phenol red readings. The phenol red readings were, however, closer to the electrometric values than brom thymol blue. See Tables VII and VIII. This method proved unsatisfactory for the following reasons:

1. The indicator solutions, especially the brom thymol blue, changed color and activity within a few days after they were made, and could not be kept satisfactorily.

2. The standard buffer solutions changed after several weeks, and had to be constantly retested electrometrically.

3. The blister fluid, by loss of CO_2, rapidly became more alkaline on exposure to the air. This necessitated taking readings immediately and gave no chance to check the result.

4. Color compensation was necessary in cases of very yellow fluids, and could not be done quickly and satisfactorily.

5. The temperature could not be controlled. All readings were done at room temperature.

6. Readings made by this method did not check with the electrometric values.

The Hastings and Sendroy bicolor method (1924) proved much more satisfactory for the determination of blister fluid pH. Fluid from the blister was secured in the following way. A small cut was made at the upper end of the blister. Immediately a long pipette, with a capillary at one end and a rubber bulb at the other, was placed into the middle of the blister, and the fluid drawn. The first pipetteful, if drawn without any air bubbles, was placed directly under paraffin oil in a 15cc. centrifuge tube. Other pipettefuls of fluid from the blister were used for other determinations, but only the first, provided it was free from air bubbles, could be used for the pH determinations. The blister fluid under the oil was tested as soon as possible after taking. 0.2cc. of fluid were used in 4cc. of the indicator solution, which had previously been adjusted to a pH of about 7.40 by the addition of a drop or two of 0.01N NaOH. Readings were made at 38° C. In only a few cases was there enough fluid to check this method against the electrometric method. See Table I.

TABLE I

Case	pH at 20° electrometric	pH at 38° H. and S. method
159	7.31	7.35
161	7.18	7.20
202	7.26	7.26
203	7.44	7.37

The agreement in spite of the temperature difference is much more close with this method than with the unsatisfactory LaMotte Spot Plate method.

IV. Blood

The following tables give the results of the blood serum analyses. Ca., K., and Na. given in mg. per 100cc. of serum.

The normal serum calcium figures of the above table, although they appear high compared with the normal values of Theis and Benedict (1920) 9.30-10.50 mg. per 100cc. or Percival and Stewart (1926) 9.4-9.9 mg. per 100 cc. agree with normal values given by Kylin (1927) 11.13 mg. per 100cc.; (subjects under 21 — 11.6; over 41 — 10.83) using Waard's method, and by Pincussen and Schimmelpfeng (1927) 11.50 mg. per 100cc. using the Kramer and Tisdall method, allowing the calcium to stand 24 hr. before centrifuging.

The potassium values agree very well with normals previously reported: 20.7 mg. per 100cc. by Kylin (1927), 20.3 by Tomasson (1928), 20.0 by Theis and Benedict (1924) and 19.9 by Salvesen and Linder (1923).

The normal sodium value agrees with 335 mg. per 100cc. obtained by Theis and Benedict (1924), 339 by Rourke (1928) and 334 by Salvesen and Linder (1923).

The normal blood pH 7.38 found here, corresponds to the pH 7.34 given by Millet (1929) and pH 7.28-7.41 given by Cullen and Robinson (1923).

TABLE II

NORMAL AND NON-CANCEROUS

Case	Sex	Age	Diagnosis	Blood analysis				Blood type
				Ca.	K.	Na.	pH	
4	♀	25	Normal	10.38	18.86			4
3	♂	22	Normal	11.26		333.20		4
4	♀	25	Normal	11.52	19.31	343.70		4
36	♂	45	Normal	10.38	21.08	347.40		2
20	♂	20	Normal	10.97	21.30	344.68		4
221	♂	20	Normal	10.67	22.29	347.50		4
22	♂	21	Normal	11.17	18.60	341.32	7.32	2
23	♂	23	Normal	10.69				4
27	♀	25	Normal	10.69	19.02	348.61		4
40	♂	21	Normal	9.86		331.42		3
43	♂	24	Normal	11.17	20.59	336.50		2
4	♀	25	Normal	10.79		335.81	7.41	
109	♀	23	Normal	11.00	18.60			
143	♀	25	Normal	12.69	20.59	336.32	7.45	
162	♂	26	Normal	12.06	20.18	330.64		
96	♀	27	Normal					4
111	♀	53		11.41	19.17			3
178	♀	31		11.80	20.16	326.69		4
137	♀	18		12.30				
99	♀	44	Fibroid uterus	11.85	22.15	333.03		2
104	♀	52	Fibroid uterus	10.69	18.25	319.22		
107	♂	65	Prostatectomy	10.35	20.76	326.83	7.33	
112	♀	34	Inflammation of pelvis	11.56	18.03			2
118	♀	22	Prolapse uterus	9.77	20.51	349.01		3
119	♀	25	Septic abortion	10.07	17.78	327.15		2
167	♀	46	Cervical polyp	10.09	16.08	339.54		4
126	♀	43	Cervical polyp					2
Average:				11.01	19.52	336.75	7.38	

TABLE III

CANCER CASES

Case	Sex	Age	Diagnosis	Blood analysis				Blood type
				Ca.	K.	Na.	pH	
6	♀		Abl. carcinomatosis		21.32	341.77		
8	♀		Ca. cervix	11.57	21.58	329.49		4
10	♂	62	Ca. larynx		24.70	342.24		4
11	♀	59	Pap. cystadenoma ovaries	10.96	22.57			4
14	♀	39	Ca. fundus	11.78	22.86	335.85		1
17	♂	62	Ca. 4+ Wassermann	11.33	20.55	331.04		3
18	♀	55	Ca. vagina	12.19				1
19	♀	74	Ca. cervix	11.67		341.79		4
26	♀	62	Ca. uterus	11.30	20.15	348.62	7.50	4
30	♀	47	Ca. breast	10.60	20.59	334.28		2
32	♀	48	Ca. cervix	12.52	23.88			2
33	♀	60	Abd. carcinomatosis	11.21	23.00		7.51	4
36	♀	53	Ca. cervix	10.84	22.72	336.50	7.26	2
39	♀	62	Ca. cervix	10.84	19.05	337.06		
41	♀	62	Ca. cervix; diabetes	11.13	19.97	356.54	7.54	4
41			Ra. in.	11.23	21.08		7.45	
42	♂		Ca. rectum	10.48	23.01		7.37	4
45	♂	75	Ca. tongue	10.81	19.09	339.32		
48	♀	56	Ca. cervix	10.33	22.01	322.81		4
50	♀	48	Ca. breast	11.23		334.00	7.47	
52	♀	63	Ca. breast	9.34	21.44	347.35		2
53	♀	48	Ca. cervix	11.13	20.90	332.28	7.26	4
54	♀	64	Ca. vulva	11.13	20.59	336.36	7.39	3
37	♂	44	Ca. stomach					4
46	♀		Ca. fundus					4
120	♀	48	Ca. ureter	11.73	19.17	349.64		
121	♀	35	Ca. cervix	11.92	21.85	349.75		4
123	♂	49	Ca. lip	12.33	19.74			
132	♀	33	Ca. cervix	11.92	23.43	334.73		4
138	♀	62	Ca. cervix	11.38	20.59	357.33		2
139	♀	61	Ca. cervix	11.68	21.02	340.86		3
142	♀	49	Ca. cervix	11.37	18.50	336.75		4
144	♀	38	Lymphoblastoma	11.37	20.02	328.36		2
145	♀	68	Ca. uterus	11.48	18.46	327.79		4
146	♀	43	Ca. cerv., 4+ Wassermann	11.78	19.89			2
149	♀	61	Ca. uterus	10.21	21.44			4
172	♀	44	Ca. uterus	10.86	21.16			4
208	♀	25	Ca. cervix	10.96	21.16	335.37		4
209	♀	47	Abd. carcinomatosis	10.36	21.58			3
Average:				11.25	21.18	338.76	7.42	
58	♀	34	Mother and 2 maternal aunts died of Ca.	10.86	20.44	344.76		

The following table shows a comparison of the average values found in the cancerous cases and non-cancerous cases. The Ca., K., and Na. values are expressed in mgs. per 100cc. of blood serum. The number of determinations given in () after each value.

TABLE IV

	Ca.	K.	Na.	pH
Cancer cases	11.25 (35)	21.18 (34)	338.76 (26)	7.42 (9)
Normal and non-cancerous	11.01 (25)	19.52 (20)	336.76 (19)	7.38 (4)

From this table it can be seen that the calcium and sodium content of cancerous serum is practically the same as that of normal or non-cancerous, while the potassium content is slightly higher. The pH is practically the same in both cases, being very slightly more alkaline in the cancer patients.

The blood type (Mauss grouping) was recorded in 51 cases. 31 were cancer cases and the rest were normal and non-cancerous patients.

TABLE V

	Type I	II	III	IV
Cancer cases	2	6	4	19
Normal and non-cancerous	0	7	3	10

The above table shows the distribution of blood types among the non-cancerous and cancerous individuals. There is no indication that cancer is more prevalent in any one particular group than in another.

V. Blister Fluid

Studies on blister fluid were made on the assumption that the blister fluid better than the blood, would indicate the conditions present in the tissues of the normal, non-cancerous and cancerous individuals. Tables VI, VII and VIII give results of pH determinations made on blister fluid, at room temperature.

TABLE VI

Normal and Non-Cancerous

Case		Diagnosis	Colorimetric pH Spot Method P.R.	Plate (B.T.B.)	Electrometric pH
16	♂	Normal	7.10	(6.90)	7.54
4	♀	Normal	7.25	(7.00)	7.54
16	♀	Normal	7.25	(7.10)	
62	♀	Normal	7.20	(7.00)	7.56
61	♀	Normal	7.40	(7.10)	
65	♂	Normal	7.30	(6.90)	
88	♀	Normal	7.00	(6.90)	7.08
95	♂	Normal	7.30	(7.20)	
96	♀	Normal	7.30	(7.20)	7.27
136	♀	Normal	6.90	(6.90)	
72	♀	Fibrosis uteri	7.15	(7.00)	7.47
74	♀	Pernicious anemia	7.20	(7.00)	7.35
75	♀	Pernicious anemia	7.20	(7.10)	7.38
76	♂	Diabetes (no acidosis)	7.20	(7.00)	7.21
85	♀	Lump in breast (no Ca.)	7.10	(7.00)	7.08
87	♂	Post-op. pneumonia	6.90	(6.90)	
76	♀	Normal post-op.	7.10	(6.95)	
90	♀	Miscarriage	6.90	(6.90)	7.11
94	♀	Tumor of uterus	6.80	(6.75)	
99	♀	Fibroid uterus	7.00	(7.00)	7.21
102	♀	Tb.	7.20	(7.10)	7.19
104	♀	Fibroid uterus	7.10	(6.90)	
107	♂	Prostatectomy	7.30	(7.20)	
116	♀	Fibrosis uteri	7.15	(7.10)	7.24
118	♀	Prolapse uterus	7.10	(7.00)	7.29
119	♀	Septic abortion	6.90	(6.90)	
122	♀	Fibroid uterus; diabetes, no sugar	7.20	(6.90)	
124	♀	Fibrosis uteri	7.00	(6.90)	7.94
125	♀	Vulvo-vag. abscesses	7.00	(7.00)	
126	♀	Cervical polyp	7.20	(7.20)	
128	♀	Ovarian cyst	7.10	(7.10)	7.25
129	♀	Vulvo-vag. abscesses	7.10	(7.10)	7.30
131	♀		7.20	(7.10)	
112	♀	Inflammation of pelvis	6.90	(6.90)	7.09
89	♂	Ulcers of stomach, four plus Wassermann	6.80		
91	♀	Fibrosis uteri	6.90	(7.00)	
Average:			7.10		7.28

TABLE VII

Cancer Cases

Case		Diagnosis	Colorimetric pH Spot Method P.R.	Plate (B.T.B.)	Electrometric pH
32	♀	Ca. cervix, with extension to parametrium	7.20	(6.90)	
33	♀	Abd. carcinomatosis	7.30	(7.00)	
36	♀	Ca. cervix	7.20	(6.90)	
37	♂	Ca. stomach	7.20	(6.90)	
39	♀	Ca. cervix		(6.90)	
39		Ra. in.	6.80		
39		After op.	7.00	(6.90)	
46	♀	Ca. fundus	7.00		
47	♀	Ca. cervix		(6.70)	
50	♀	Ca. breast (recurrent)		(6.80)	
51	♀	Ca. uterus	6.80	(6.80)	7.17
52	♀	Ca. uterus		(6.80)	7.25
53	♀	Ca. cervix		(6.95)	
54	♀	Ca. vulva		(6.90)	
63	♀	Ca. uterus	7.20	(6.80)	
30	♀	Ca. breast	7.10	(6.90)	7.46
64	♀	Abd. carcinomatosis	7.20	(6.80)	
66	♂	Ca. lungs	6.80	(6.80)	
67	♀	Ca. cervix		(6.70)	
69	♀	Ca. stomach	6.90	(6.90)	
70	♂	Ca. orbit	7.00	(6.90)	
11	♀	Pap. cystadenoma of ovaries	6.90	(6.90)	7.04
77	♀	Ca. uterus	6.90	(7.00)	7.06
78	♀	Ca. breast	7.00	(6.90)	
81	♀	Ca. cervix	6.80	(6.80)	7.32
82	♀	Ca. colon	6.80	(6.80)	
83	♀	Sar. leg	7.15	(6.90)	7.24
84	♀	Ca. stomach	6.90	(6.90)	7.08
86	♂	Ca. sigmoid	6.90	(6.90)	
92	♀	Melanosarcoma	7.00	(6.90)	7.03
93	♀	Ca. uterus	6.60	(6.60)	
97	♀	Ca. cervix	7.10	(7.10)	7.00
98	♀	Ca. ovary	7.30	(7.10)	
103	♀	Ca. uterus	6.90	(6.90)	7.05

105	♀	Ca. uterus	7.20	(7.15)	7.56
106	♂	Ca. sigmoid	7.10	(7.00)	
108	♀	Ca. cervix	7.00	(7.00)	
110	♀	Pap. cystadenoma ovary	7.20	(7.10)	7.24
117	♀	Pap. cystadenoma ovary	7.20	(7.20)	
120	♀	Recurr. Ca. after hyst.	7.10	(7.00)	
121	♀	Ca. cervix	7.10	(7.05)	
121		Ra. in.	7.20	(7.20)	7.27
123	♂	Ca. lip	7.00	(6.90)	
127	♀	Ca. cervix	7.20	(7.10)	7.10
130	♀	Ca. stomach	7.00	(7.00)	
132	♀	Ca. cervix	7.20	(7.10)	7.40
Average:			7.02		7.20

The brom thymol blue results in the above tables are not averaged, because they are so low that they are worthless. Although the colorimetric values with phenol red are of little or no value they do show the same thing as the electrometric determinations, that the pH in the cancer cases is more acid than in the normal or in the non-cancerous patients.

The following table gives pH results on five individuals who have cancer history in the family.

Tables IX, X, XI, XII and XIII give the sodium, potassium, calcium and pH values for normal, non-cancerous patients and cancer patients. The potassium, calcium and sodium are expressed in mgs. per 100cc. of blister fluid. The pH values were obtained by the Hastings and Sendroy method at 38° C., except the figures marked * which were obtained by the Lamotte Spot Plate method. Only pH values secured by using the Hastings and Sendroy method are used in averaging results. Table XV gives values for patients showing positive Wassermann reactions, and Table XIV for tuberculosis cases. The averages are in Table XVII.

Practically no previous work has been done on the analysis of blister fluid. Marraek and Thaeker (1926) report a value of 9.1 mg. per 100cc. for the calcium of one blister fluid from a normal individual.

TABLE VIII

Case	Sex	Colorimetric pH La Motte Spot Plate Method		Electrometric pH
58	♀	P. R. (B.T.B.)		
58	♀		(7.05)	
68	♀	6.90	(6.90)	7.11
71	♀	6.90	(6.80)	
73	♀	6.90	(6.90)	
80	♀	6.90	(6.90)	

TABLE IX

NORMAL BLISTER FLUID

Case	Sex	Age	pH	Ca.	K.	Na.
96	♀	27	7.30	9.30	16.61	318.38
16	♂	45	7.30	8.53		
147	♀	42	7.27	9.04		
153	♀	37	7.30	9.20	15.76	
155	♂	24	7.20			
159	♀	17	7.35	9.15		
158	♂	47	7.30	9.30		
160	♂	16	7.37			
Average:			7.30	9.09	16.18	318.38

TABLE X

BLISTER FLUID. CANCER CASES WITH APPARENT RECOVERY

Case	Sex	Age	Diagnosis and Treatment	pH	Ca.	K.	Na.
105	♀	56	Ca. uterus, Op. 8 yrs. ago	7.20*		18.63	
110	♀	53	Pap. cystadenoma ovary, Op. 2 yrs. ago	7.20*	9.19		
132	♀	33	Ca. cervix, treated with Ra. 5 yrs. ago	7.20**	8.36		
177	♀	46	Ca. cervix, treated with Ra. 2 yrs. ago	7.34	10.21	14.63	
190	♀	53	Ca. cervix, treated 3 yrs. ago	7.45	7.72		
203	♀	51	Ca. bladder, treated, Op. and Ra. 5 yrs. ago	7.36	7.87		
205	♀	63	Ca. cervix, treated 2 yrs. ago	7.30			
Average:				7.36	8.67	16.63	

TABLE XI

BLISTER FLUID. CASES OTHER THAN CANCER

Case	Sex	Age	Diagnosis	pH	Ca.	K.	Na.
116	♀	33	Fibroid uterus	7.15*		18.24	
118	♀	22	Prolapse uterus	7.10*	8.69	18.24	298.14
119	♀	25	Septic abortion	6.90*		17.78	300.20
128	♀	21	Ovarian cyst	7.10*	10.56		
163	♀	47	Chronic cervicitis	7.37			
126	♀	43	Cervical polyp	7.20*	12.07		
164	♀	63	Diabetes	7.35			
166	♀	52	Fibrosis uteri	7.30			
167	♀	46	Cervical polyp	7.35	7.91	14.63	345.58
170	♀	50	Prolapse uterus	7.29	9.40	18.89	325.55
171	♀	51	Fibrosis uteri	7.38	7.89		
173	♀	61	Pernicious anemia	7.33	8.29	14.91	
176	♀	52	Lump in breast	7.45	11.11		
179	♀	59	Intestinal adhesions	7.35			
183	♀	43	Chronic tube oophoritis and cervicitis	7.21	11.03		
199	♀	42	Chronic cervicitis	7.33	9.43	19.17	
210	♀	18	Retroversion	7.32			
211	♀	44	Multiple fibroids	7.26	10.52		
260	♀	66	Fibrosis uteri	7.35			
271	♀	25	Hemorrhagia	7.50	* 10.00		
273	♀	57	Cervical polyp	7.25	8.60		

TABLE XI (*Continued*)

274	♀	44	Fibrosis uteri	7.25	8.40		
276	♀	51	Hernia	7.30	10.80		
284	♀	50	Fibroid uterus	7.23	10.86		
285	♀	54	Fibrosis uteri	7.25	9.99		
286	♀	30	Fibrosis uteri	7.35			
287	♀	16	Pubertal bleeding	7.25	11.09	18.39	
288	♀	41	Fibrosis uteri	7.36	11.21		343.26
Average:				7.32	9.76	17.53	332.35

TABLE XII

BLISTER FLUID. CANCER CASES

Case	Sex	Age	Diagnosis	pH	Ca.	K.	Na.
148	♀	59	Adenocarcinoma uterus	7.25	8.02	15.26	
145	♀	68	Ca. uterus	7.15			
154	♀	44	Ca. cervix	7.20			
168	♀	68	Ca. breast	7.20	8.43		
169	♀	36	Ca. cervix	7.20	6.96		3.19.90
181	♀	40	Ca. cervix; diabetes	7.17	7.60	15.90	
184	♀	76	Ca. uterus	7.34	10.16		
188	♂	69	Ca. breast	7.37	8.71		
189	♀	68	Ca. breast	7.40			
202	♀	61	Ca. rectum	7.26	8.17		
209	♀	47	Abd. carcinomatosis	7.30			
213	♂	58	Ca. stomach	7.17			
259	♀	60	Ca. breast		8.05		
264	♂	40	Ca. rectum	7.25			
265	♀	50	Ca. breast, metastatic glands in abd.	7.00	9.20		
266	♀	51	Ca. breast	7.10	8.80		
267	♀	59	Ca. breast	7.27	9.86		
270	♀	51	Ca. tongue	7.20			
272	♀	34	Ca. breast		7.10	20.50	
275	♀	29	Adenomadestruns	7.25			
277	♀	48	Ca. intestines	7.30	8.60	16.26	
278	♀	52	Ca. uterus	7.35	8.40		
281	♀	36	Ca. breast	7.21	8.20		
282	♀	64	Ca. cervix	7.21	7.10	15.83	
283	♀	45	Ca. cervix (Pul. Tb.?)	7.10	(13.50)		
1	♀	31	Ca. cervix	7.35	7.37	16.12	346.69
2	♀	50	Ca. cervix	7.37	7.57	15.91	339.82
303	♀	54	Ca. breast	7.27	7.73	20.09	337.54
Average:				7.24	8.21 (8.47)	18.69	335.99

TABLE XIII

BLISTER FLUID. CANCER CASES FOLLOWED DURING TREATMENT

A. Before Treatment

Case	Sex	Age	Date	Diagnosis	pH	Ca.	K.	Na.
142	♀	49	3-30-29	Ca. cervix	7.22			329.83
144	♀	38	4-2-29	Lymphoblastoma	7.10			
149	♀	61	4-9-29	Ca. uterus, recurrent in mesenteric lymph glands	7.25	7.86		
146	♀	43	4-5-29	Ca. cervix, positive Wassermann	7.23	7.15		323.73
161	♀	62	4-15-29	Ca. cervix	7.30	9.20	14.21	337.70
172	♀	44	4-24-29	Ca. cervix	7.26		21.58	
180	♀	51	4-30-29	Ca. cervix	7.31	8.85		327.83
182	♀	41	5-1-29	Ca. cervix	7.19		18.46	
208	♀	25	5-17-29	Ca. cervix	7.20			
262	♂	57	6-12-29	Ca. rectum	7.28	8.20	20.69	
Average:					7.23	8.25	17.79	328.42

B. After Treatment

Case	Sex	Age	Date	Treatment	pH	Ca.	K.	Na.
142	♀	49	4-9-29	Ra. 44 mg. for 123 hr.	7.15	7.80		329.83
144	♀	38	4-18-29	Op. X-ray	7.20			
149	♀	61	4-17-29	Ra. 25 mg. for 120 hr.	7.37			
146	♀	43	4-9-29	Ra. 100 mg. 15½ hr. 22 mg. 84 hr.	7.25			
161	♀	62	5-20-29	Ra. 32 mg. 112 hr.	7.20			
172	♀	44	4-21-29	$CaCl_2$ and parathyroid	7.26	7.50		
180	♀	51	5-6-29	Ra. 24 mg.	7.28	9.36		
182	♀	41	5-6-29	Ra.	7.35			
208	♀	25	5-21-29	$CaCl_2$ and parathyroid	7.27	9.91		
			5-25-29	$CaCl_2$ and parathyroid	7.15	10.20		
262	♂	57	6-22-29	$CaCl_2$ and parathyroid	7.22	9.60		
Average:					7.24	9.06		329.83

TABLE XIV

BLISTER FLUID
TB. CASES—PULMONARY TB. WITH + SPUTUM

Case	Sex	Age	pH	Ca.	K.
192	♂	14		11.96	
194	♂	38	7.33	13.16	
195	♂	58	7.35	13.35	
196	♂	50	7.23	9.48	15.48
197	♂	59		8.68	
198	♂	48	7.30		
216A	♀	30		14.08	
216B	♀	19		9.77	
217A	♀	34		9.52	
217B	♀	29		10.70	
218A	♀	40		14.28	
218B	♀	25		14.13	
219A	♀	24		12.27	
219B	♀	25		11.26	
220A	♀	26		13.48	
220B	♀	23		14.88	
221A	♀	23		9.66	
221B	♀	23		9.96	
222A	♀	25	7.35	13.48	
222B	♀	60	7.35	11.26	
223A	♀	38		10.86	
223B	♀	35		14.88	
224	♀	20		12.88	
225A	♀	26		11.46	
225B	♀	31		11.64	
226A	♀	22	7.20	14.08	
226B	♀	24		14.65	
227A	♀	24		9.05	
227B	♀	24		12.46	
228A	♀	24		13.08	
228B	♀	47		12.88	
229	♀	33		13.68	
230A	♀	27		13.08	
230B	♀	20		11.26	
231	♀	18	7.30	13.48	
232A	♀	21	7.25		
232B	♀	20	7.25		
233	♂	20		10.86	
234	♂	28		11.46	
235A	♂	37	7.30	10.06	
235B	♂	42		10.86	
236	♂	41		10.86	
237	♂	26		12.27	
238A	♂	42		9.91	
238B	♂	45		10.86	
239A	♂	60		9.39	
239B	♂	19		13.28	
240	♂	27		13.28	
241	♂	24		10.46	
242	♂	39		10.06	
243	♂	69		12.87	
244	♂	42		10.30	
245	♂	62		13.68	
246A	♂	28		13.58	
246B	♂	17	7.40	12.73	
247A	♂	21	7.40	13.08	
247B	♂	43		12.88	
248	♂	44		13.58	
249A	♂	19		11.67	
249B	♂	39		13.41	
250A	♂	25		9.86	
250B	♂	49		12.07	
251	♂	50		11.66	
252	♂	22		14.57	
Average:			7.31	11.99	

TABLE XV

BLISTER FLUID. PATIENTS WITH 4+ WASSERMANN

Case	Sex	Age	pH	Ca.	K.
253	♀	58	7.37	9.26	
254	♀	25	7.23	7.44	13.60
255	♀	20	7.30	10.06	
258	♀	24	7.43	9.46	19.76
263	♂	61	7.30	7.80	
Average:			7.33	8.80	16.76

TABLE XVI

BLISTER. FLUID. CASES WITH NO DIAGNOSIS

Case	Sex	Age	Partial Diagnosis	pH	Ca.	K.	Na.
165	♂	43	Ca. stomach?	7.35			
187	♀	60	Broken femur	7.37			
193	♂	38		7.10			
214	♂	25	Pulmonary observation	7.35	10.26	29.11	
268	♀	36		7.25	10.40		
269	♀	35		7.23	6.45	24.29	329.29
279	♀	51		7.40	7.60		

From the above table of averages it can be seen that the pH and the calcium of the blister fluid in cancer cases is lower than in non-cancerous cases, while the sodium is higher and the potassium is about the same, being slightly higher in the cancer patients. The calcium is higher in the tuberculosis cases than in cancer cases or in normal individuals. Further work is to be done to determine the magnesium content of blister fluid.

Since tuberculosis and cancer occur together only rarely, the above study of the calcium content of the blister fluid of tuberculous patients was undertaken at The Rhode Island State Sanatorium at Wallum Lake. Out of about 10,000 cases of tuberculosis recorded at Wallum Lake, only three have had malignancy. The high calcium values found in the tuberculosis patients may perhaps be partly accounted for by the fact that the tuberculosis patients were on the average younger than the cancer patients (Wood 1928) or the non-cancerous patients; and also that tuberculosis patients are kept on a diet high in calcium. Further investigation is needed to show whether or not the diet does influence the blister fluid.

It is interesting to note the increase in calcium in the cancer cases being treated with calcium salts and parathyroid intravenously. We are not able to state at present whether this treatment is proving effective or not in the therapy of human cancer.

VII. Conclusions

From a study of blood serum and blister fluid in cancerous and non-cancerous individuals the following results have been found.

1. The blood serum of cancer patients contains essentially the same amounts of potassium, calcium and sodium and has the same pH as non-cancerous serum, although the pH and potassium are perhaps a bit higher in the cancer cases.
2. In the blister fluid of cancer patients the calcium and pH are lower and the potassium and sodium higher than in normal or non-cancerous individuals.
3. The calcium of the blister fluid of tuberculosis patients is higher than that of normal or cancer cases.

TABLE XVII

AVERAGES

	Cancer (Untreated)	Normal and Non-cancer	Tb	4+
Ca	8.20 (25 cases)	9.69 (25 cases)	11.99 (61 cases)	8.80 (5 cases)
K	17.57 (12 cases)	16.94 (14 cases)	including 1 Tb and 2 Luetic	
Na	332.88 (8 cases)	321.52 (6 cases)		
pH	7.23 (36 cases)	7.31 (44 cases)	including Tubercular. Colorimetric	
ph	7.20 (16 cases)	7.28 (20 cases)	Electrometric	

4. Cancer is not more prevalent in individuals of any one blood type than in any other.

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DISCUSSION

DR. ROBERT B. GREENOUGH: I fear I am not competent to discuss the technical details of Dr. Pitts' paper, but I would like to say a word in regard to the importance of investigations of this nature.

We recognize that the Cohnheim theory of the origin of tumors applies to one group of cases of cancer which develop from embryonic misplacements of tissue, such as the embryomas, dermoids, pigmented moles, etc., including a number of benign tumors like fibromyoma of the uterus, and adeno-fibroma of the breast. Another type of cancer is the type which arises late in life and apparently at a point which has been subjected to long continued "chronic irritation". As you know, cancer can be produced experimentally in animals, and accidentally in human beings, by three different methods; by the use of chemicals like tar, by physical agents like radiation, or by biological products produced by parasites. In all of these cases a long period of time is necessary before the irritative phenomena, commonly spoken of as pre-cancerous changes, progress to actual cancer. We distinguish furthermore in certain individuals and in certain races of animals, a constitutional state, whether due to heredity or to some other factor, which makes those animals' tissues produce cancer more readily than other individuals or races. We know very little about this constitutional state. We cannot say whether it is a physical or a chemical change in the tissues, and Dr. Pitts' experiments are designed to find some definite difference between the constitutional conditions in human beings who have cancer and in human beings who have not cancer. I think Dr. Pitts does not present these experiments as in any way conclusive but as evidence of a sincere effort to break ground in a new line of investigation in the hope of throwing a little light on a very baffling problem.

DR. GEORGE C. WILKINS, Manchester, N. H.: I am far less competent to discuss this question than Dr. Greenough because he has been associated with the Cancer Research Department of Harvard College. I am interested in the subject particularly from the clinical standpoint and we all, as clinical surgeons, are interested when medical research unfolds anything that may be of practical value, and it is hoped that this may lead to something of importance.

I have had the pleasure of reading Dr. Pitts' paper in full and there are many valuable points in the paper which he did not bring out in the brief discussion which he gave. Some of those I intended to discuss, but cannot, of course, for that reason.

I wonder whether there is any possibility that the difference in the blister fluid, having been developed through a process of inflammation of the surface skin, would in any way be responsible for the difference in the pH or the amount of calcium in that fluid as compared with the blood serum.

The paper also shows that the calcium is low in the cancer cases and very much higher than normal in tuberculosis patients and I know he has brought out the point by inference, at least, of the absence of cancer in tuberculosis cases. I do not know whether there are any conclusions to be drawn from these facts, but, of course, we have to consider that tuberculosis patients are younger than cancer patients and are also fed on a diet that is richer in calcium.

Of course, we hope that this study will bring out something because, as Dr. Greenough said,

it is following a new line and is studying the cancer individual rather than the tumor itself.

DR. PITTS: In Dr. Greenough's discussion. I think I see a marked change in the attitude he took several years ago concerning a pre-disposition to cancer in certain individuals. It seems to me that in considering embryonic rests without some general predisposition to cancer, these rests would probably last a person's lifetime without developing definite cancer; in other words that there must be something in the individual that has not yet been discovered that determines whether that individual will develop cancer or not.

Regarding heredity there has been an interesting development in our own laboratory recently. The mice we obtained from Boston grew tumors very readily at first. As we carried the mice down through successive generations the offsprings developed a distinct resistance that makes it almost impossible to transplant these tumors now. The Boston laboratory has found the same difficulty and has recently written us for mice that are susceptible to this tumor. Our animals are very well fed and kept in clean airy cages and we have wondered whether their excellent physical state has anything to do with their increased resistance.

Regarding the possible effect of the increased calcium in tuberculous cases preventing the development of cancer, I had a letter from Dr. Barnes, head of the State Sanatorium for tuberculosis, in which he states that in ten thousand admissions there have been only three cases of cancer developed and cancer developed in these individuals when the tuberculosis was quiescent. Dr. Wilkins points out the tuberculous patient is apt to be younger than the average cancer patient. This may have something to do with the small number of tuberculous patients who develop cancer.

The importance of cancer research increases with the lack of results that have followed research so far. About three years ago with the enthusiastic co-öperation of the Biological Department of Brown University, we started research here in Providence. The first work was done on experimental tumors in mice. This work though voluminous, has not been reported as yet.

We had in mind making a careful study of the cancerous individual to see if we could find in any way a difference between the cancerous and the non-cancerous individual. We chose as our first study a comparison of the blood plasma from the cancerous and non-cancerous. From that we went on to the study of blister fluid. Blister fluid has been studied to a slight extent but we thought it worth while to make a more extended investigation.

EXCERPTS FROM WEEKLY NOTES ON CHILD WELFARE TOPICS COMPILED BY THE U. S. CHILDREN'S BUREAU

PORTABLE PLAYGROUNDS, CHELSEA, MASS.

Chelsea's scheme of bringing to a different street each day a set of playground equipment—swings, slides, teeters, and balls—and then closing the street to traffic has proved a great success. The two instructors in charge arrange for games, races, and contests. These portable playgrounds are used to supplement the five regular playgrounds of this Massachusetts community.

CHILE'S RURAL HEALTH PLANS

Chile's social-welfare authorities are planning to open dispensaries and first-aid stations in rural areas where immediate medical service is not available. The plans also include the detailing of physicians to isolated regions during the winter months, and the distribution of adequate medical supplies among owners of agricultural and industrial enterprises.

WEEKLY HEALTH INDEX

Telegraphic returns from 63 cities with a total population of twenty-nine million for the week ending February 8 indicate a mortality rate of 14.3 as against a rate of 15.8 for the corresponding week of last year. The highest rate (25.5) appears for Memphis, Tenn., and the lowest (7.3) for Schenectady, N. Y. The highest infant mortality rate (156) appears for Paterson, N. J., and the lowest for Erie, Pa., which reported no infant mortality.

The annual rate for 63 cities is 13.7 for the six weeks of 1930, as against a rate of 18.2 for the corresponding weeks of 1929.

BOSTON MEDICAL LIBRARY

BY CHARLES F. PAINTER, M.D.*

TO those who have noticed the trend of the membership curve of the Boston Medical Library it must have been apparent that the professional support of this important factor in the maintenance of the high standards of the profession which it serves in this community is falling off to a considerable degree. It behooves the rank and file of the practitioners hereabouts to ask themselves seriously if they are prepared to see the service which this Library has been enabled to provide undergo a drastic curtailment. Doubtless it is true that many doctors use the library only occasionally, but these few occasions must usually be of very considerable importance to them, in that this visit is based on the need to obtain information which is of immediate practical concern to them and their patients. How would these occasional users feel if there was no library to consult, or if consulted, it was found that it could not provide the literature which they needed and which there is a legitimate reason to expect they would find there?

The funds of the institution, with the exception of three bequests, have been left absolutely restricted to specific purposes and the capital increases to either the restricted or unrestricted funds, or for the establishment of new funds, have been few and far between. Through the wise advice which has been given by Scudder, Stevens and Clark, the Committee on Finance has been able to increase the total valuation of the investments of the Library very materially and together with this the anticipated income from investments has been raised about $2000 for the current year. Against this however has been a very great increase since the War, in the cost of periodicals, particularly of all of the old standard foreign publications. This alone will more than absorb the increase in our total income, not all of which could by any means be allotted to the purchase of periodicals. Besides, new and worth-while journals are all the time being brought out and not to make a discriminating selection from among them would reflect at once upon the up-to-date position of our collection. New books, it goes without saying, are coming out at an ever increasing rate. Even if an arrangement for review with the *New England Journal of Medicine*, the *Journal of Bone and Joint Surgery* and other kindly disposed publishers and individuals could be made, we could still use considerably more funds, for this item alone, than we now have.

Salaries have always been kept at the lowest price for services rendered and, even so, the increases we have felt constrained to make from time to time have amounted to a considerable figure in the past few years. The other items of general expense have also shown a slight but steady increase.

The library of the New York Academy of Medicine receives by purchase and gifts about 1831 periodicals, 1044 subscriptions for which they expend close to $9,000.00 annually. The library of the College of Physicians of Philadelphia receives about 1,200 periodicals, 706 by subscriptions for which their annual expenditure is approximately $7,000.00. The Boston Medical Library received in 1929, 786 periodicals, 514 by subscription at an expenditure of about $5,000.00. The three restricted funds devoted to the purchase of periodicals yield an income of about $1,200.00. The balance of our expenditures of about $5,000.00 must therefore come from unrestricted income, a higher percentage of which is being consumed in the service of the library from year to year. An increase of our unrestricted income is therefore urgently needed.

The annual assessments for membership have been increased it is true and are of course unrestricted in their use but our dues now are only about five dollars more than they were a hundred years ago, and a dollar at that time certainly purchased many times more than it does now, which means that those who promoted this Library in its earlier years were willing to spend quite as freely for its support as we of this generation. They did their own bibliographies and the use of the collection was largely on the cafeteria plan, so that 60% of the library's funds were not taken up in the item of service, which is about the percentage now used for this purpose.

The raising of our dues has not been a very conspicuous cause for our diminishing membership. It has rather been due to our failure to replace our losses through death and resignation. It is probably true that the margin between income and cost of living among doctors as a class is not a wide one, and appreciation of what the significance of the resignation of a considerable number of members would mean to the library has not really been brought home to them. New members rather than an increase in membership dues is of the greatest importance in making it possible for the library to maintain its high standard of service to the medical profession, not only of Boston, but to all of New England.

There are some points in which a profession and a business are alike. In both it is necessary to keep one's equipment up to date and in both it is essential that one be alert as to what advances are being made. A machine shop

*Painter—For record and address of author see "This Week's Issue," page 445.

that is prepared to effect repairs upon automobiles, for example, which are likely to be brought into it off the street, must have the equipment to handle that class of trade efficiently or lose it, and the manager of such a business who does not inform himself in advance as to what changes are taking place in the manufacture of cars will find himself beaten in the competition for business success. A medical library could easily save a doctor the cost of his annual dues by helping him keep himself informed, not only as to what technical additions to his equipment are worth while but as to significant advances in the science and art of his calling. Without such aids he is likely to find himself in the same position as the mechanic who is not wide-awake to the rapid strides of efficiency. This is bringing the conduct of a great profession down to the level of a business enterprise actuated chiefly by the desire for success in a keenly competitive field and makes no account of that pride of co-öperation with one's co-workers in promoting the health and happiness of an entire population. The institutions which most effectively contribute to the success of the profession's efforts along these lines are its Medical Libraries and Hospital Clinics. Individually we seek to avail ourselves of the benefits of the clinics and once having secured the advantage of an appointment to one or more it has become necessary to establish an age limit beyond which we may not stay. There is no such rush to become a member of a Library, whose real value is not materially less, except in the matter of procuring an earlier lay recognition of one's abilities.

We should be as proud to be identified with Library membership and as gratified over the success of its efforts to provide the means of advancing the interest of our profession as we are proud of having interned at any great hospital or of having been identified, as a staff member, with any of its clinics. That those who are most keenly alive to the rapid advances which are being made in the practice of medicine and who are associated in group-practice, are among those who are most helpful in the support of our Library as well as in availing themselves of its help, serves to emphasize what we have been saying. In a city where the general average of professional ability is admittedly high, where its medical institutions enjoy an enviable national reputation for the quality of their work and in a community distinguished for its culture, to have only 778 out of 2000 of its practitioners on the membership list of one of its most useful and well-equipped institutions, and furthermore to see their number diminishing, is a sad commentary upon the wide-awakeness of the profession. If the doctors in metropolitan Boston would enroll themselves as members in the proportion that they should and share in the pride they might legitimately take in one of its century-old institutions (for it is in 1804 that the beginnings of the Library are recorded) the income that would accrue would enable the Library to continue to maintain its place in the front rank of medical Libraries in the country. If they do not, those who now use it, depend upon it and take their part in supporting it, are certain to see it fall away from the high place that it has attained and that, neither Boston nor its medical profession, we believe, is willing to see.

The Library has several funds the incomes from which are used for the purchase of books in particular lines. If these were all and severally made up to $5000 the income for each would be adequate, annually, to secure the most worth while books in those specialties. The Dolliver Fund, for example, is for the purchase of books on Obstetrics and Gynaecology but its income is barely adequate to purchase the current textbooks. A very practical way of aiding the Library would be for those who are especially concerned with any specialty to interest an individual or a group of individuals to build these funds up to a point where the return on the investment will be sufficient to care for current literature in the particular subject.

The cost of completing files of periodicals is often very considerable and the necessity for doing so is an ever present one, for the losses from negligence or theft are more than one not conversant with large libraries would imagine. Opportunity to complete files very often comes at a time when funds from unrestricted sources of income are not immediately available and thus an opportunity is lost.

VERMONT STATE MEDICAL SOCIETY

CANCER CLINICS*

BY ROBERT B. GREENOUGH, M.D.†

THE public and the medical profession of the country as a whole, are coming to feel more and more dissatisfied with the results obtained in the treatment of Cancer by the methods now in vogue. In most of our larger hospitals the percentage of cures of this disease is lamentably small. At the Massachusetts General Hospital we obtain successful results in only about 10% of all the cases of Cancer of the Uterus, which come to the hospital, and of Cancer of the Breast only about 15%. From other clinics the published results are practically the same. It is not surprising that a spirit of pessimism should exist under these circumstances, and especially have we a right to be critical of such unfavorable results when we realize that with the resources now available to us for treatment (surgery and radiation) good results can be obtained in a much larger percentage of cases of cancer, if only this treatment can be applied in the early and favorable stage of the disease. Thus the figures can readily be raised to 50% for Cancer of the Uterus, and even 70% for Cancer of the Breast, if we count only the early cases in each of these situations, in which the disease is still confined to its point of origin, and has not spread to involve more distant structures. In other words, our present methods of treatment, inadequate as they are for the cure of the advanced case of cancer, are quite as effective as the treatments we employ for many other diseases if only they can be applied in time. It is well known that the advanced case of diphtheria will die, in spite of antitoxin yet we regard antitoxin, none the less, as a valuable and effective method of treatment for diphtheria. The trouble lies at present, not so much with the methods of treatment as with the insidious, almost symptomless development of the disease, and so far as this is concerned, it is not improbable that even if we had today some specific method of constitutional treatment for cancer, the difficulty of recognizing the disease in its early stages would still tend to prevent the application of this specific remedy early enough to make it 100% effective.

Early diagnosis is thus the prime essential to any effective treatment of cancer, and efforts to promote and to facilitate the early recognition of the disease appear to be the most promising method of increasing the efficiency of treatment and bringing about a reduction of its mortality.

The early diagnosis of cancer in its many situations is dependent upon a number of different factors, notably (1) the patient, (2) the physician first consulted, and (3) the resources available in the community for special diagnosis and treatment of cancer cases.

So far as the patient is concerned, no steps can be taken to provide either diagnosis or treatment until the patient consults a physician. It is for this reason that the education of the public in regard to cancer, and especially in regard to the possible cancer-significance of certain symptoms, such as lumps, chronic ulcerations, and above all, abnormal discharges, has been undertaken so vigorously in the past fifteen years. The American Society for the Control of Cancer, through its printed matter, its use of the daily press, and magazines, by provision of public lectures, and moving pictures, has made a sincere and effective effort to educate the public to a more correct idea of the disease, and of its rational treatment; and to indicate the symptoms which may properly be regarded as suggestive of cancer. As a result of these campaigns, much of the unreasoning horror of the disease has been done away with and many popular misconceptions as to cancer have been corrected. Today, cancer is a topic of general discussion, in the press and among the laity, and it may truthfully be said that in some districts, at least, the educated public are more alive to the possible cancer significance of certain symptoms than are certain members of the medical profession. There is more to be done, however, in this direction; the tendency to procrastination on the part of the patient and sometimes of his physician, also, which impels them both to defer the diagnosis of a dreaded disease, must be overcome; as well as that extraordinary trait of human nature which leads people to look with confidence upon the new and untried remedy, however it may be exploited, in preference to the established methods of treatment which have been accepted only after successful trial in the hands of reputable physicians all over the world.

It is a familiar statement that the diagnosis of a case of advanced cancer is an easy one; but the diagnosis and treatment of early cancer, in all its different situations, requires more than any one practising physician can ever hope to have in experience and in material resources. Indeed the development of the special cancer clinic is tacit acknowledgment of this fact, and even in our greatest hospitals it is only by the organization of a whole group of men, including the surgeon, the x-ray and radium expert, the pathologist, and the internist, together with representatives of the specialties, such as, genito-

*Read at the Annual Meeting of the Vermont State Medical Society, Bellows Falls, October 10.

†Greenough—Visiting Surgeon, Massachusetts General Hospital. For record and address of author see "This Week's Issue," page 445.

urinary surgery, and nose and throat, and with material equipment in the way of laboratories and surgical appliances, and x-ray apparatus and radium, that the best results can be obtained. Cancer has ceased to be a one-man job, and has become a problem for attack by a group of trained and well-equipped experts. Cancer, in its earliest stages, in many situations can be distinguished only with the greatest difficulty from other lesions, more or less characteristic for each situation, which are not cancer. In some cases the diagnosis may be impossible without a biopsy, but since delay is fatal, recourse to a diagnosis by pathological examination of excised tissue must be had; operations of this nature must be conducted in such a way as not to jeopardize the patient's chances of cure, if cancer is found to be present, and the close association of the pathological laboratory and the operating room is a prime essential to the success of early diagnosis.

So far as the practising physician is concerned, the most that can be asked of him is that he shall be alert to recognize the possible cancer significance of the symptoms described by the patient; that he shall make such direct and digital examinations as may be needed to determine whether definite symptoms of cancer can be discovered; and in the doubtful case make sure that his patient is referred to some institution where the experience and resources of the clinical staff are such as to ensure the patient obtaining the chance to which he is entitled of being cured of his disease.

Upon the physician in general practice, perhaps more than upon any other one factor, depends the success of our efforts to improve the results of the treatment of cancer. Apart from his function of being the first to examine the suspected cancer patient, he occupies a unique position among his patients in regard to health education, and his opinion is accepted as gospel by many of them. If he supports the efforts to educate the public, his patients benefit, and if he opposes it or is half-hearted in his support they adopt his attitude. In the conduct of his practice, however, he cannot afford to get the reputation of being an alarmist, and where expert service in regard to early cancer is available to his patient only at a considerable distance and at a very considerable expense he is tempted to delay action on the doubtful case until he is reasonably sure of the diagnosis. Such a delay, however, we know to be fatal to the patient's possibility of cure, and it is precisely to meet this situation, that the special cancer clinic is devised. In the past two years, under the State Department of Public Health, a group of sixteen Cancer Clinics, connected and co-ördinated with a State Cancer Hospital, have been organized and put in operation in Massachusetts. These clinics have been organized only in existing general hospitals whose professional and material resources were sufficient to conduct them; and no clinic was established until the organized medical profession of that community took steps by the appointment of a clinic committee, to support the project. Under the general supervision of the Department of Public Health, these clinics are co-ördinated with the State Cancer Hospital of 100 beds at Pondville; and through uniform organization, and record systems, and with the aid of Social Service workers, a close co-öperation is maintained, and cases requiring special treatment not available locally are enabled to procure such treatment promptly and at minimum expense. The advantages of these clinics may be summed up as follows:

Being scattered throughout the State, one of these clinics is readily accessible to every town in Massachusetts, and the physician is urged to come to the clinic with his patient that the case may be discussed, and its proper treatment determined with his co-öperation. In this way the physician's knowledge of the symptoms and signs of early cancer is increased and he gains a better understanding of the problem as a whole, and of the resources available to meet it. From each of these clinics also, goes out information in regard to cancer which is of benefit to the public. Committees of laymen have been organized in connection with most of these clinics, to deal with this aspect of the question.

The provision of a group of men, expert each in his special field, undoubtedly contributes much to the possibility of early diagnosis, but the material resources of the hospital and of the laboratory, for immediate frozen section diagnosis in doubtful cases, is a prime essential in the recognition of the early case, if we are to hope for successful treatment in these cases.

The ideal choice of treatment in any given case of cancer, may require surgical operations of varying degrees of magnitude, the employment of electro-cauterization and coagulation apparatus, x-ray of low or high voltage, or radium. All of these facilities are not readily available in every community, but the co-ordination of the State Clinics with the State Cancer Hospital at Pondville and with other institutions devoted to Cancer work where some or all of these facilities for treatment are available, makes possible and convenient the prompt reference and admission of the patient to the institution where the treatment best suited to the individual case can be obtained.

A uniform system of records is in use in the State Cancer Clinics, and data of medical and sociological importance are thus secured, which have already resulted in studies of great interest, by the State Cancer Division upon the urban and racial aspects of cancer incidence. Under the State Department of Health, a Clinic Committee has been appointed, with representatives from different centres, and meetings are held every six months by the staffs of all the clinics, for discussion of the general problem,

and to promote the efficiency of the service rendered.

Through the Social Service Departments of the clinics, and those of the State Hospital, and other Cancer Hospitals, patients requiring either some special form of active treatment, or some provision for care in more advanced cases, are readily placed in institutions which are suited to their needs, and much delay is saved and suffering avoided by the effective use of the machinery devised for this purpose.

By the concentration of the cancer work of a hospital in the hands of a small group of interested individuals, opportunity is given for the intensive study of groups of cases; and many contributions of value are thus produced, dealing with the diagnosis and treatment of cancer of special regions or by special methods. Each of these contributions helps to advance the general knowledge of the disease. The disadvantages encountered in the organization and conduct of these clinics are as follows:—

There is undoubtedly a feeling of pessimism among the medical profession in regard to cancer and too often it is based upon actual past experience and to this extent quite justified. As a fact, however, pessimism does not get us very far ahead in this world, and the situation really demands relief. It seems foolish for us to sit idly by, with our hands folded, while awaiting from the research laboratories a universal cure for cancer. Even if such a cure should be discovered, we may readily find that the problem of early diagnosis still remains as a "sine qua non" of effective treatment.

The objection is often raised today that medicine is becoming over-specialized, and it is certainly true that special clinics on tuberculosis, fractures, diabetes, heart disease, and on many other conditions beside cancer, have sprung up vigorously during the past ten years. During this time medicine has made extraordinary advances, and they have been chiefly by the introduction of methods which involve laboratory investigation whether physical, chemical, or biological. Such methods, for their successful application, at first at least, require the close association of the laboratory and the patient, a condition which can be brought about only in our larger hospitals, and neither the clinical experience nor the necessary laboratory apparatus can at first be made available for the use of the physician in general practice. The only way these advances in medical science can be made available to the physician for the benefit of his patients is by the organization of a special consultation clinic, and it is this fact, more than any other, which accounts for the recent development of these special clinics. The attitude of the physician in general practice toward these clinics is not always cordial; and in some instances, at least, the methods adopted in the organization and conduct of these clinics have not always been as wise and as considerate of the interests of the general practitioner as could be desired.

In the last analysis, however, they represent a real advance in the resources of medical science and are so regarded by the public. It remains for the physician in general practice to make such use of these resources as will best serve the interests of his patients, and in so doing he will find that he retains the respect of his patients, and has the satisfaction of feeling that he has procured for them the best that medical science has to offer in his community. The demand for his services will be in no way diminished by his adoption of such an attitude toward the special clinic, but it will rather be increased for the physician in general practice is now and will long remain the chief factor in the community for the preservation and protection of the Public Health, and patients who live and prosper and continue to consult him, pay more doctors' bills than those who have died of diabetes or cancer for lack of prompt diagnosis and adequate treatment.

Discussion

*Dr. McSweeney: There is not very much left to be said on the subject after we have listened to Dr. Greenough. I have been associated with him for many years on the cancer question, and he is one of the foremost men in Massachusetts in trying to reduce the death rate from cancer. They opened the first state clinic in the United States, I believe, in Massachusetts, and that cancer hospital has something like 90 beds, and, as I understand it that hospital is full to capacity all the time.

There is not any doubt in my mind but the work that the physicians of Massachusetts are doing is going to reduce materially the death rate from cancer, in Massachusetts. They put on a big campaign last fall, and as the Doctor has said, they have opened sixteen clinics, and they have men in the different cities all over the state who are in accord with that movement, and it can't but result in good. But, with all that, the thing that is going to reduce the death rate in cancer in Vermont depends upon the men in this audience. And the Doctor laid the keynote when he said "the early diagnosis". We will not reduce the death rate from cancer if we do not get the patients into the hospitals for a year or a year and a half, and perhaps some for two years, for practically all of these patients have received their death warrants long before that. With cancer of the breast, if that is not treated properly the most of those people are dead within three years. The same thing is true of the woman who has a discharge of the cervix, and practically all of these women are dead within one and a half or two years.

The general practitioner sees the patient. A man has a sore on his lip, or a woman has a lump

*Not edited by Dr. McSweeney.

on her breast, or a person has an irregular menstrual discharge. If she is not examined and taken care of, the opportunity to save her is lost. After the doctor has seen that patient what should he do? If there is a lump on the breast there is only one radical thing to do, and that is, remove it, and if it looks suspicious then complete the operation right then and there and give that patient a chance for her life. Now I believe that if we all remember that with every sore on the lip that is not healed in six weeks, or getting better in six weeks, we can take it for granted that that is the beginning of cancer, and with every lump in the breast, unless a woman is nursing a baby, if it does not get better in four to six weeks, that that is suspicious of cancer, and with every woman over thirty-five years of age who has a discharge between the periods, and they continue, that that is a suspicious case of cancer. All of these cases must be sent to the proper place, where there are men who know what to do, and will do it.

There are several hospitals in the state of Vermont where these cases can be sent and properly taken care of, as far as the surgical treatment is concerned. All of the hospitals have not the proper amount of radium.

I believe it is up to the general practitioner, if we have any cutting down in the death rate in Vermont, to make a diagnosis as early as possible and give proper treatment. The time will come when we will have cancer clinics, and Dr. Dalton's idea is that it must come through the state legislature, and we must keep that in mind and get the right men to go there so that we can ask the legislature to appropriate money so that we can have, perhaps, a hospital where these cases can be taken and the state pay part of the expenses.

PRESIDENT DALTON: This is open for general discussion.

DR. BANCROFT: It seems to me that there are two or three problems in what Dr. Greenough has brought out that are not solved. In the early diagnosis I am convinced that a periodic health examination is going to do a great deal toward eliminating cancer, but there are certain obligations that the medical profession must assume. A periodic health examination obligates the physician to perform a careful, thorough examination, which includes the inspection of the eyes, nose and throat, and a thorough, careful examination of the thorax and abdomen. Also, if a woman, a visual inspection of the cervix with a speculum, and the use of a proctoscope should there be any suspicion of rectal disease. A patient frequently comes to a doctor for a periodic health examination to rule out cancer, and the conscientious physician cannot eliminate gastro-intestinal disease without x-rays of the stomach and large bowel. Radiological laboratories have not considered this factor of periodic health examination: Their prices for a gastro-intestinal series are much too high for the average person to pay. It would seem that they must consider some minimum type of examination which would eliminate cancer, at a minimum fee. This would allow the periodic health examination of patients worrying about cancer to be thorough and practical.

DR. BALL: The cancer work is, as Dr. Greenough has said, that of getting results in the treated cases. Bloodgood says, the man who takes a cancer case has got to make good, or the general practitioner won't send other patients to him.

Dr. Greenough has brought out the need of team work, and only as we have team work are we going to get ahead. The experiences of the past have been such that I think the general practitioner receives his cancer case with alarm and throws up his hands. The point that Dr. Greenough brought out was that former statistics are being changed. Fifteen years ago cancer of the cervix was only 10 to 15% successful in early operations performed by the most experienced surgeons. At the present time, in well organized clinics, that has been raised to 33%, and in some up to as high as 50%, by irradiation methods. I think the general practitioner is not aware of this fact. There are many hospitals where they are turning out a high percentage of successful cases. The effort is to have a standard technique, like the so-called standard technique in surgical procedures. The plea is being made that radiologists organize their statistics in such a way that one can know just what another man is doing. I have just been card-indexing my therapy patients for this purpose, and I find I have to date, embodying about every type of malignancy, a thousand cases.

In skin cancers, we not operate on them, not even cancer of the lip, they are well treated with irradiation. Uterine cervical cancers are best treated by irradiation.

Referring to a recent trip to New York, Lord Moynihan of Leeds, England, told us at the Memorial Hospital that it had been five years since he had operated a cancer of the tongue, and more than a year since he had operated for cancer of the breast. He said, "Our irradiation therapy is so fine that I doubt if I ever operate a cancer of the breast, and I know I shall never operate a cancer of the tongue again." This is a startling statement, but in organizations where cancer is taken seriously, and irradiation methods are used, improved results are being obtained.

DR. ADAMS: It seems to me that success in the treatment of cancer is no different than the success in the treatment of almost any disease. Not so long ago I heard this remark by a noted neurologist,—my success in treatments of the bladder depends on the painstaking care which I exercise in that treatment. I recall a paper by Dr. John Wheeler, of Burlington, on cancer of

the breast, which, if I recall correctly, he read at a medical meeting in Burlington about eight years ago, in which he reported, I took it, all of the cases of cancer of the breast which he had operated up to that time, with 25% of the three-year, or longer, periods of cure, which apparently was exceptionally good. Now, the point, I think, with those of us who know Dr. Wheeler, is that the cases are operated on with a great deal of care.

In the matter of getting the cases early, there are the factors of resistance of the patients to be overcome, and there are a great many economical reasons, and, I fear, a lack of confidence, a lack of time, etc. It seems to me that the point, as regards the men who see these cases, is that there should be a great deal of patience and care in their examination, and a spirit of friendliness shown to these patients, to have them feel that they will be treated justly and kindly, and wisely, in all matters pertaining to their welfare. (Applause.)

PRESIDENT DALTON: I will ask Dr. Wheeler to say something about it.

DR. WHEELER: Thank you for your very flattering reception. I wish I could say something worthy of it. In regard to this paper of mine that Dr. Adams has spoken of, it was more than eight years ago that I read it. I think it was in 1916 and was a report of cases from 1892 to 1914. It did not include all the cases I had operated upon, but all those in which diagnosis had been verified by the microscope. There was quite a number of others as well as those on which the microscope was used, in which diagnosis was verified by outcome of the cases, and records, etc. The total number of cases, included in the paper, was only 55, because in Burlington, before 1892, we had not the advantages of having a good pathologist at hand, with a sufficient outfit to make satisfactory diagnoses. However, in those 55 cases, the result was a little better than 25%, if I remember rightly it was about 28%. Beyond a doubt, so far as the experience of anybody goes, who has had much to do with the treatment of cancer, the only hope is the earliest possible recognition of the nature of the trouble. If you can get hold of a cancerous nodule, before metastasis has begun, and if you are fortunate enough to make a diagnosis in that stage, a comparatively insignificant operation, or the use of radium, or x-ray,—(although I confess to being rather timid about radium in the beginning of cancer, unless it is a superficial one,) is all there is to do. Under such conditions the chance of cure is much better than 25 or 30%.

PRESIDENT DALTON: I will ask Dr. Greenough to close.

DR. GREENOUGH: In confirmation of Dr. Bancroft's statement I would like to say that I believe the periodic health examination is an important factor in improving the Cancer situation. I believe, however, that periodic examination, whether carried out by the Life Extension Institute or by the General Practitioner, will always result in the discovery of a certain number of cases in which the diagnosis of Cancer is suspected but cannot be proved. In these cases a consultation will be needed, and one of the great advantages of the system of consultation clinics established in Massachusetts is that such consultation is available without undue expense or loss of time to every resident in the State. I am sure that if such a system of clinics existed in Vermont everyone of you gentlemen would be glad to avail yourselves of that service in cases where the diagnosis is doubtful. Without such a service you are either forced to wait for the development of further symptoms which you know is not favorable to the case if it is actually cancer, or else to send your patient for a considerable distance and at considerable expense to obtain the desired consultation service.

Dr. McSweeney spoke of the possibility of obtaining aid from the State in the organization of these clinics. The way this came about in Massachusetts was as follows:—The Legislature became interested in cancer and a bill was introduced to authorize the purchase of radium by the State, to be used by every physician in the State for the treatment of indigent patients. Radium, like x-ray, is capable of doing a great deal of harm in inexperienced hands, and this bill did not pass, but authority was given the Department of Public Health to conduct a survey to determine the number of beds available for the treatment of cancer cases in the State. On the report of this survey a bill was introduced and passed authorizing the assignment and equipment of a State Hospital for Cancer cases of seventy-five beds, and with this appropriation an item of twenty-five thousand dollars to promote the organization of cancer clinics in existing hospitals to work in co-öperation with this State Hospital. In this way provision was made for the recognition and treatment of early cases of Cancer, as well as for the advanced case. The effective treatment of cancer cases requires the resources of a general hospital and a group of physicians and surgeons who are interested in the problem working in co-öperation. Any well-equipped and well-staffed general hospital can provide such a group, and all that is necessary is a re-apportionment of cases in the hospital. This is brought about to get the cancer cases into the hands of the members of the staff, who are interested in providing them with the best that surgery and radiation have to offer in the treatment of this disease.

MISCELLANY

VERMONT DEPARTMENT OF PUBLIC HEALTH DECEMBER, 1929

A review of the report of communicable diseases for the year 1929 shows a remarkable similarity to

the situation as reported in 1928. The following table shows this comparison:

	Cases		Deaths	
	1928	1929	1928	1929*
Chickenpox	1454	1197	0	0
Diphtheria	104	106	11	8
Measles	1712	858	0	5
Mumps	1598	1560	1	0
Poliomyelitis	49	32	9	2
Scarlet fever	581	551	6	5
Smallpox	12	216	0	0
Typhoid fever	26	27	9	8
Whooping cough	1301	1396	11	14

*1929, 10 months.

It will be noted that the one exception in the above table is smallpox of which there were 216 cases reported in 1929, as against 12 in the previous year. A study of the smallpox situation is interesting in that practically all of the cases occurred in three counties. Reports by counties are shown by the following table:

Addison County	5 cases
Bennington "	0
Caledonia "	4
Chittenden "	79
Essex "	0
Franklin "	0
Grand Isle "	1
Lamoille "	48
Orange "	1
Orleans "	1
Rutland "	1
Washington "	47
Windham "	21
Windsor "	8

The report of the present month shows cases only in Washington County, and the question now arises whether the other counties of the state will be invaded. Considerable numbers of people have been vaccinated in all of the places where smallpox has appeared, and these regions are presumably fairly well protected against epidemics. However, in the counties where there have been no cases, or only a few, vaccination is still neglected and there is opportunity for more cases to occur.

Vaccinations in the different localities, as noted above, have been carried on with much efficiency. There has been no panic at any point, but the health officers have recommended wholesale vaccination, and, for the most part, towns have been willing to furnish material and pay the doctors for treatment of indigent cases. At the present time, wholesale vaccination is being carried on in the City of Montpelier by means of a public clinic at the office of the Health Department, and a large number of vaccinations has been done by different doctors. It is probable that considerably more than one-half of the people of Montpelier and vicinity have been newly vaccinated within the last two or three months.

During the month of December, there were sent out from this office new forms of birth and death certificates. These forms and an accompanying letter were sent to every doctor in the state, and a supply also sent to the office of the town clerks. Change in these forms also made necessary changes in other forms which are used for making certified copies and providing supplemental information. It also necessitated a change in the form of transit permits for dead bodies. Cards will be sent out to town clerks in making certified copies of birth and death certificates used for permanent filing in the office of the Secretary of State.

Communicable diseases reported during the month of December are as follows: chickenpox 177, diphtheria 11, measles 120, mumps 7, scarlet fever 76, smallpox 22, typhoid fever 1, whooping cough 93 and tuberculosis 12.

The Laboratory of Hygiene made 1438 examinations during the month, classified as follows:

Examinations	
For diphtheria bacilli	231
For Widal reaction of typhoid fever	27
For malarial parasites	3
For tubercle bacilli	225
For evidence of syphilis	327
For gonococci in pus	114
Of blood for contagious abortion in cattle	183
Of water, chemical and bacteriological	29
Of water, bacteriological	114
Of milk, market	99
Of milk, submitted for chemical only	4
Of food	2
For the courts, autopsies	5
For the courts, miscellaneous	10
Autopsies to complete death returns	0
Examination of animal heads for evidence of rabies	2
Miscellaneous examinations	63

The Division of Communicable Diseases reports 46 cases of gonorrhea, 25 cases of syphilis, 28 patients under treatment by physicians, 276 Wassermann outfits mailed out and 189 slides for smears.

The Division of After-care for Poliomyelitis visited 90 homes in December. Twenty-one new pieces of apparatus were fitted, 5 pieces were altered or repaired and one plaster cast was removed. One patient was admitted to the hospital and six patients discharged from hospitals. The vocational worker reports sales made amounting to $112.18.

The State Advisory Nurse of the Maternity and Infancy Division has outlined a course on Child Care that is planned to be presented in some of the high schools of the state during the winter months. The Nurse has visited several towns in the interest of this Division.

VERMONT SOCIETY NOTES

Dr. E. O. Angel of Bradford has resigned from the Society because of removal from the State.

Dr. J. A. Wark is visiting in Brattleboro.

Dr. Wm. McFarland spent a few days in Boston on business.

Barre City Hospital has installed a new Victor x-ray which is much appreciated.

Mrs. Jane Newcomb, wife of Dr. Leo A. Newcomb of Montpelier, died at her home after a short ill-

ness with meningitis. Sympathy is extended to Dr. Newcomb.

Dr. W. H. Wright of Waterbury has been appointed a member of the consulting staff of the Bishop De-Goesbriand hospital.

The regular winter meeting of the Rutland County Society was held at the Rutland Hospital on January sixteenth. Dr. Howard Ball and Dr. John Southworth were elected to membership. The speaker of the evening was Dr. Urquhart of the Connecticut State Tuberculosis Sanatorium, who spoke on "The Surgical Treatment of Tuberculosis."

Preceding the meeting Dr. Urquhart performed a phrenicotomy on a patient from the State Sanatorium. The operation was witnessed by several local physicians and surgeons.

At the meeting, Dr. Urquhart explained at length the operation done in the morning. Two reels of motion pictures and many x-ray films were used in the demonstration.

Dr. E. J. Rogers reported several cases of artificial pneumothorax, showing x-rays at various stages.

The Bennington County Medical Society met at the Putnam Memorial Hospital, Bennington, January 29, Dr. John Trotter, President, presiding. Cases were demonstrated by Doctors Goodall, Ross, Gardenier and Buchanan.

Dr. Ellis Kellert, pathologist to the hospital, presented a fine paper entitled "Hemorrhagic Conditions in the New Born."

There is one case of smallpox in the town.

A large meeting and dinner is planned for this month.

NEWS ITEM

Dr. and Mrs. J. P. Gifford left recently on a vacation trip, expecting to be away nearly three months. They went from Barre, Vermont, to Bristol, Conn., where they were to stay over-night with Dr. and Mrs. Ralph A. Richardson, Dr. Richardson being at one time an assistant of Dr. Gifford in his office at Barre, Vermont. From there they go to New York, from which place they sail on Thursday on the S.S. Rotterdam of the Holland-America line on a 71-day cruise of the Mediterranean, which includes visits to Egypt and the Holy Land. The first stop is at the Madeira islands, off the coast of North Africa, then to Gibraltar, Algiers, the Island of Malta, where St. Paul was shipwrecked, to Greece, Constantinople, the Isle of Cyprus, Palestine and the Holy Land, Egypt and the valley of the Nile, Jugo Slavia, Venice and Naples and other points in Italy, the Riviera, Spanish Seville, London, Holland and may be Paris, returning to New York on April 19. The doctor's office will be closed during his absence and his practice in charge of Dr. A. T. Marshall.—*Barre Daily Times*, Feb. 3, 1930.

PHYSICAL EDUCATION AND SCHOOL HYGIENE CIRCULAR NO. 16

The White House Conference on Child Health and Protection will do its work through committees. The executive committee consists of:

Ray Lyman Wilbur, M.D., Secretary of the Interior, Chairman.

H. E. Barnard, Ph.D., Director.

Hugh S. Cumming, M.D.

French Strother, Administrative Assistant to the President.

The Section Chairmen are:

Section I. Medical Service—Samuel McC. Hamill, M.D., Philadelphia, Pa.

A—Growth and Development—Kenneth D. Blackfan, M.D., Boston, Mass.

B—Pre-natal and Maternal Care—Fred L. Adair, M.D., Minneapolis, Minn.

C—Medical Care for Children—Philip Van Ingen, M.D., New York City.

Section II. Public Health Service and Administration—Hugh S. Cumming, Surg. Gen'l.

A—Public Health Organization—E. L. Bishop, M.D., Nashville, Tenn.

B—Communicable Disease Control—George H. Bigelow, M.D., Boston, Mass.

C—Milk Production and Control—H. A. Whittaker, Minneapolis, Minn.

Section III. Education and Training—F. J. Kelly, Ph.D., President University of Idaho, Moscow, Idaho.

A—The Family and Parent Education—Louise Stanley, Ph.D., Washington, D. C.

B—The Infant and Preschool Child—John E. Anderson, Ph.D., Minneapolis, Minn.

C—The School Child—Thomas D. Wood, New York City.

D—Vocational Guidance and Child Labor—Anne S. Davis, Chicago, Ill.

E—Recreation and Physical Education—Henry Breckinridge, New York City.

F—Special Classes—Chas. S. Berry, Ph.D., Ann Arbor, Mich.

Section IV. The Handicapped: Prevention: Maintenance: Protection—C. C. Carstens, Director Child Welfare League of America, New York City.

A—State and Local Organizations for the Handicapped—Mrs. Kate Burr Johnson, Raleigh, N. C.

B—Physically and Mentally Handicapped—Wm. J. Ellis, Trenton, N. J.

C—1—Socially Handicapped—Dependency—Homer Folks, New York City.

C—2—Socially Handicapped—Delinquency—Frederick P. Cabot, Boston, Mass.

Case Records
of the
Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY R. C. CABOT, M.D.

F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 16091

EPISTAXIS, NIGHT SWEATS AND EMACIATION

MEDICAL DEPARTMENT

An English-American mechanic thirty years old entered May 24 through the Emergency Ward, so exhausted that he could not give the history. The sister who accompanied him had not been with him much and could give only broad outlines of the story.

At seven years he had rheumatic fever. Since that time he had had dyspnea, palpitation and cough and occasionally had fainted on exertion. He had led a life of very limited activity. His work was painting with a stencil, using white lead. Until three years before admission he was "perfectly well". Then he had sudden onset of right lower quadrant pain, vomiting and fever. He was operated upon for acute appendicitis. After four weeks in the hospital he apparently recovered without complications. He continued however to have night sweats, worse than he had had for two months before the operation. After two weeks at home he had an attack of left lower quadrant pain more severe than that on the right side. He was in the hospital again for eight weeks. Since that time he had had swelling of the knees and ankles, belching of gas, constipation, and gradual loss of weight. (At times these last statements were denied.) The night sweats had continued until recently. During the past year his cough had been worse. A year before admission an examination at a tuberculosis sanitarium was negative. Two months before admission he began to lose weight so rapidly that he reëntered the hospital. While there he had frequent right-sided epistaxis. He continued to lose weight, fifty pounds in the past two months. He thought no diagnosis had been made at any time.

His physician was called by telephone. He believed that the abdominal complaints had been foremost. For the past year the patient's temperature had been 100° in the morning and 102° in the afternoon.

Clinical examination showed a poorly developed, very emaciated man, apparently very weak and exhausted, not apparently feverish or in pain. Skin dry. Skin and mucous membranes very pale. Scattered over the body, chiefly on the extremities, were numerous petechiae. Tongue coated and parched. Firm pea-sized glands in both cervical and axillary regions and the right supraclavicular region. Apex impulse of the heart diffuse. Percussion measurements as shown in Figure 1. Sounds of poor

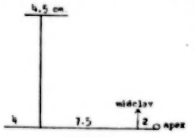


FIGURE 1.

quality. Pulmonic second greater than aortic second. A loud apical systolic and diastolic murmur and an apical systolic thrill. Pulse of poor quality and diminished volume and tension. Radials palpable. Blood pressure 90/70 to 95/65. Breathing shallow. Lung signs as shown in Figure 2. Abdominal wall held rather

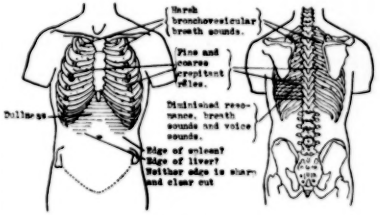

Harsh bronchovesicular breath sounds.
Fine and coarse crepitent rales.
Diminished resonance, breath sounds and voice sounds.
Dullness
Edge of spleen?
Edge of liver?
Neither edge is sharp and clear cut

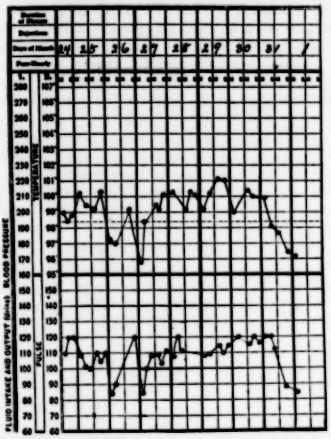
FIGURE 2.

rigid but with no true spasm. Scar of old appendectomy. Questionable edges of liver and spleen were felt, both tender. There was more tenderness in the left upper quadrant than on the right extending to the questioned edges. Fingers clubbed. Reflexes hyperactive. Sustained right ankle clonus.

Amount and specific gravity of urine normal, sediment 2 to 5 leukocytes and many red blood cells in both of two specimens. Renal function 15 per cent. Blood: 22,500 to 9,800 leukocytes, 73 per cent polynuclears, hemoglobin 40 to 50 per cent, reds 3,380,000 to 2,550,000, moderate achromia, slight anisocytosis and poikilocytosis, platelets normal. Hinton negative. Two blood cultures May 24 showed no growth.

Temperature and pulse as shown in the chart. Respirations 14 to 44; after May 27 always increased.

X-ray examination showed the left diaphragm elevated, the right in the usual position. Both were distinctly seen. The costophrenic angles were clear. The right lung field was smaller and less radiant than the left. Both showed diffuse fine mottling distributed along the lung markings, most prominent in the mid-lung fields. The bases were more radiant than the



mid-portion on each side. The heart shadow was definitely increased in size. (See Figure 3.) The greatest prominence was in the region

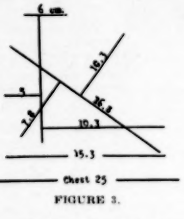


FIGURE 3.

of the right auricle. Plates taken the following day confirmed these findings.

A surgical consultant found the patient extremely ill, the abdomen soft, the liver below the umbilicus, the spleen very large. He found fluid in the abdomen. He did not advise operation. May 25 a medical consultant found unequal expansion of the lungs and abdominal pain and spasm. On May 30 the abdominal tenderness was more marked on the right than on the left. The patient was then lying on his right side.

June 1 he died.

Clinical Discussion

BY RICHARD C. CABOT, M.D., AND GEORGE W. HOLMES, M.D.

NOTES ON THE HISTORY

That remark about the night sweats is a little cryptic, but I suppose it means that he had night sweats for two months before operation and that they were now worse. Of course you do not have night sweats before an operation for appendicitis in any considerable number of cases. We have to take that suggestion of appendicitis with a good deal of sodium chloride. Of course a person might have abscess of the liver or some other suppurative complication with appendicitis, but then it would not be likely to go through an attack with so little said about it. It seems to be a prompt recovery.

The severe attack of left lower quadrant pain makes us still more skeptical about that diagnosis of appendicitis.

The night sweats seem to be the most constant feature of the case. They led to the examination at the tuberculosis sanitarium. The commonest cause in the public mind of night sweats is tuberculosis.

A loss of fifty pounds in the past two months is quite a statement. Of course we do not know how fat he was. Unless he was unusually fat that is a tremendous loss of weight.

It is worth while to speculate a little on what that history suggests. If we take seriously that statement about dyspnea and rheumatism of a type which we associate with "rheumatic heart trouble", the first thing to think of as a cause of all the night sweats is subacute or chronic ulcerative endocarditis. That term "subacute" has stuck pretty well in spite of its being proved that cases can run for two years. We do not like to call it "chronic endocarditis," because that term has been associated for a long time with a non-infectious, purely fibrous or fibrocalcareous process. I think we shall have to revise all this terminology. We now seriously stretch the term subacute bacterial endocarditis. We stretch the term in cases too short to call subacute and in others so long that they are really chronic. That disease, whatever we call it, is the first thing in our minds when we have a person who has had heart disease, and now apparently has night sweats, therefore presumably fever, over a long period with loss of weight. This is not in any way impugned by the fact that he had abdominal attacks which may have been due to embolism and infarct. His cough we should set down to the same cause, heart disease with passive congestion of the lungs.

NOTES ON THE PHYSICAL EXAMINATION

The clinical examination confirms the idea that he may have lost fifty pounds; he was very emaciated.

Numerous petechiae go to support the diagnosis we have been thinking of.

I do not think a gland the size of a pea has any particular significance. I imagine if we were to examine the glands of the members of this class we should find a good many glands the size of a pea. Pea-sized glands are about the limit of what we should call normal, because so many people who have them are not abnormal.

Figure 1 seems to show a decidedly wide heart.

The notable thing in that blood pressure is not so much that all the figures are low as that the pulse pressure is very slight. 90/70 is a distinctly diminished pulse pressure.

We should expect many râles and diminished resonance with some fluid at the left base. Whether those signs at the top mean anything I am uncertain. When we do not have the other apex as a standard of comparison, when we listen to any one apex it is practically impossible to say whether it shows bronchovesicular breathing or not. There is no absolute standard of pitch, intensity or duration, nothing that can be set down as normal while anything beyond that is bronchovesicular. One cannot tell whether to pay any attention to these signs or not.

In the abdomen the edge of the spleen is felt, which is important and not out of harmony with the diagnosis we have been thinking of, because in bacterial endocarditis the spleen often is enlarged. But its unusual size suggests other possibilities connected with the glands. It makes us think more of the pea-sized glands which I was inclined to disregard. The edge of the liver was felt, as it is apt to be in any case of poor circulation. Neither edge however is sharp and clear cut. I do not think we can judge anything from that.

The tenderness in the left upper quadrant is unusual in pure heart disease. In ordinary chronic heart disease there is more tenderness on the right because the liver is the organ affected.

The fact that the fingers are clubbed tends to show that whatever he has above the diaphragm he has had for a good while. That is about as much as we can say.

The sustained right ankle clonus makes us wonder whether there is some embolic or other brain lesion.

The blood shows a moderate secondary anemia, probably with some leukocytosis. I say "probably" because the polynuclear count is not high, and we are never sure of any leukocytosis as long as the total count is high.

The chart shows that most of the time during the week he was in the hospital his temperature was above normal. His pulse was on the average 110. Neither of those things helps us much except to confirm the idea that he has infectious disease, which we strongly suspected from his history.

Dr. George W. Holmes: The left side of the diaphragm is often high from a large amount of food or gas in the stomach. Elevation of the diaphragm on the left does not necessarily mean much. If we could rule out other things it sometimes means incomplete expansion of the lungs on that side, obstruction of the bronchus, adhesions in the pleura or other causes. When the diaphragm is distinctly seen it usually means there is no fluid in the lower part of the chest and no consolidation. The costophrenic angles are clear. That again means no fluid in that region. "The right lung field was smaller and less radiant than the left." I doubt that a little. They look about the same. It is difficult to see the diffuse fine mottling along the lung markings, but when you get close it is easy to see it throughout the midportion of the chest. I think we can say at once that that is not a normal chest. The gross pathology would probably be caused by a peribronchial and bronchial process rather than by a process throughout the lungs. The lung tissue around the bronchi would have areas in which there was no air, or consolidation, or it might be just waterlogging. Such an appearance as that is not characteristic. There are a number of causes which could produce it.

Dr. Cabot: Is it consistent with bronchiectasis?

Dr. Holmes: We have no evidence of bronchiectasis. We never say from an X-ray film that a patient has not got bronchiectasis.

I agree absolutely that the heart shadow is increased in size. To say just what the changes are due to there is not so easy. We ought to have an opportunity to study the patient with the fluoroscope and rotate him from side to side. That apparently was done, and they decided that the auricle was enlarged, perhaps due to a valvular lesion of rheumatic origin. I should think there was some hypertrophy of the left ventricle. It is rather prominent at the apex. But the right ventricle at times will give a similar picture. It is not always possible to distinguish between them. The curve here is in the region of the auricle. It is rather low and there is no corresponding prominence to the left. The chances are that one of the auricles is very much enlarged. The right is the more likely. There is no change in the appearance of the great vessels. The diameter is well within normal limits and we have no reason to suspect dilatation of the aorta, aneurysm or anything of that sort.

We have a process involving both lungs about equally, perhaps a little more on the right than on the left, accompanying a distinctly enlarged heart with some evidence of dilatation of the auricles. The first thing to think of is a lesion primarily cardiac with changes in the lung due to cardiac trouble. That would explain the whole picture very well. We do not need to bring anything else into it. It would of course be possible to have such an appearance due to tuberculous disease or any recent pulmonary infarction.

Dr. Cabot: Is it very improbable that those shadows in the lung represent malignant disease or leukemic infiltration?

Dr. Holmes: I cannot actually rule out those things, especially the leukemic type of Hodgkin's disease.

Dr. Cabot: I am in doubt from the clinical

side whether the heart lesion which I confidently believe is there is confined to the mitral or includes also the aorta. Can you help us?

DR. HOLMES: There is a very distinct prominence here to the left. I presume that is the left ventricle, and I should suspect more than involvement of the mitral valve.

DIFFERENTIAL DIAGNOSIS

DR. CABOT: His death comes a little suddenly. I suppose that there was nothing important between the last note and the death.

Certainly we are on more than ordinarily safe ground when we say that the man has endocarditis; the history points to an active and not merely a burnt-out mechanical process on one or more valves,—in other words bacterial endocarditis, subacute or chronic. As to the question of where it is, we have more evidence of the mitral valve than elsewhere. We have really rather little to suggest any other valve. Why, therefore, should we consider it at all? In the first place because the majority of cases which have this process on one valve have it on another. Then because Dr. Holmes suggested that the left ventricle was a little more prominent than one would expect it to be with pure mitral trouble. Then the murmur, though circumstantially described, is not described as characteristic of mitral disease at all. It is not said to be low-pitched or rolling or ending with a sharp first sound or following a double second sound, all points tending to decide whether this is mitral or not. The time of the murmur is not enough. We want to know its pitch. We worked it out here with a machine that the Western Electric Company helped us to use and showed that the pitch of the presystolic mitral murmur is lower than any other, 30 to 120 vibrations per second, while in systolic murmurs the dominant rate is from 140 to 660 vibrations per second. In this examination somebody ought to have recorded what he thought one way or another.

We have considered the aortic valve as a possibility. We ought also to mention the tricuspid valve. There are no characteristic clinical signs to show whether tricuspid disease is present or absent.

Of course if what I have said is true there will be general hypertrophy and dilatation of the heart.

Outside the heart Dr. Holmes told us there are shadows in the lungs which are perfectly consistent with passive congestion and do not need to be due to anything else. What else they might be we will discuss after considering the abdominal condition. There is no evidence of fluid in the lungs, a surprising thing in view of the apparent evidence of fluid in the abdomen. That makes us wonder whether that fluid in the abdomen is dropsy or something else. We shall have to consider that "something else" when we come to the abdomen. Above the diaphragm there is nothing else except these perhaps slightly enlarged glands.

Below the diaphragm we have a large spleen. What about the spleen in bacterial endocarditis? Can anybody tell me about that?

A STUDENT: It is enlarged.

DR. CABOT: Sometimes it is enlarged a good deal. But it is unusual for it to be as large as the impression I get from this description. It could perfectly well be due wholly to that, endocarditis and infarcts. If we are thinking of an enlarged spleen due not to passive congestion but to infection, can you think of another complication which happens in the spleen in the disease we are suspecting?

A STUDENT: Infaret.

DR. CABOT: Yes. Infarction, often septic; that sometimes leads to abscess, and that to perforation and peritonitis. All those events are perfectly possible in this case. He did not have the fulminating, virulent signs of perforating peritonitis. But this patient's vital resistance was knocked down to a point where there might be almost no reaction to peritonitis. So we can not exclude a septic infarction which has perforated or worked through so as to soil the peritoneum. The previous attacks of pain might perfectly well be due to similar infarctions. What else can we think of about that spleen?

A STUDENT: Could it be leukemic?

DR. CABOT: I do not think it can. There are all sorts of leukemia, but if this man has leukemia, you and I are out of luck. I cannot say so on any evidence we have. Hodgkin's disease is conceivable. Hodgkin's can cause fever such as this. The man had an enlarged spleen and enlarged glands. It is conceivable that he has Hodgkin's disease in addition to heart trouble. I do not think it is a reasonable possibility that the whole thing is Hodgkin's. We have to say that he had something else, and that in the heart. He may have two separate diseases. I do not know how to rule out that possibility. Statistically this combination is a rarity, therefore it is improbable.

We think of bronchiectasis because he has had fever so long and cough so long and shadows in the lung plate, but we should expect him to be spitting pus, which he has not done so far as we know.

What of his kidneys? I do not think we have evidence of anything more than passive congestion. Infarcts in the spleen, infarcts in the lungs,—if there are infarcts in these two places it is quite possible that there are infarcts in the kidneys. Do any of the things you have been demonstrating in the lungs correspond to infarct, Dr. Holmes?

DR. HOLMES: No. They should be larger, more dense, if they were infarcts.

DR. CABOT: He has never spit up blood, as many patients do.

These petechiae mentioned at the beginning are very important evidence if they are correctly

reported. They do not go with Hodgkin's disease, or very rarely, and they do go with the other disease of which we have been speaking. They are due I suppose to embolism, of which we also have suggestions in the spleen. The negative blood cultures are not important because the amount of blood taken is so little and the blood stream is so large.

My diagnosis, then, is subacute bacterial endocarditis affecting the mitral, very possibly the aortic valve, with (in all probability) an old chronic endocarditis on one or both valves, with hypertrophy and dilatation of the heart and passive congestion of the lungs; in the spleen an infarct which possibly has perforated and soiled the peritoneum. Is there any question or discussion of this diagnosis?

A STUDENT: Could a vegetation on the tricuspid valve give a small abscess in the lung without giving pus in the sputum?

DR. CABOT: Yes, so far as I know.

DR. HOLMES: I do not think these films suggest that at all.

DR. CABOT: On the clinical side that is a perfectly rational suggestion.

A STUDENT: Could there be infarct of the kidney? There was some hematuria.

DR. CABOT: Yes, I think you are right. Many would interpret that as passive congestion. But I think it rather suggests infarction. The other possibility is acute glomerular nephritis, which often accompanies this disease and brings many red blood cells into the urine.

A STUDENT: Would you consider peritoneal tuberculosis with the primary focus in the lungs?

DR. CABOT: Perhaps I ought to. The description of the abdomen would go very well with it, and of course the fever. In some cases masses are felt, but not always. The ascitic fluid would go perfectly well with that, especially as there is no fluid in the lungs. These shadows in the lungs could perfectly well be tuberculous glands, Dr. Holmes?

DR. HOLMES: They could be more than that. They could be the tubercles themselves.

DR. CABOT: I cannot rule it out. But my attitude in the whole matter is influenced by the idea that with heart trouble you seldom get anything so different as tuberculosis. But of course there is nothing to prevent the two diseases occurring at once.

A STUDENT: Couldn't lead colic account for the abdominal symptoms? He had used white lead.

DR. CABOT: One certainly could not make that diagnosis without evidence in the gums or the blood. We are supposing that they looked at the gums and found nothing. I should say that lead poisoning is improbable.

A STUDENT: Wouldn't the bulging of the right auricle suggest tricuspid valve involvement?

DR. CABOT: No more than it would suggest mitral, which we have considered anyway. We also get it with tricuspid disease; but as we have it with or without either, I do not see how we can say much on the basis of that fact.

BACTERIOLOGIC REPORT

Blood culture May 31. Streptococcus viridans in both flasks.

FURTHER DISCUSSION

The positive blood culture goes to strengthen the diagnosis which I take it we have all made. It does not however rule out the other possibilities, Hodgkin's disease or tuberculosis, although I do not think they are probable.

INTERPRETATION OF X-RAY

The changes (in the lungs) might be due to the condition of the heart.

CLINICAL DIAGNOSES (FROM HOSPITAL RECORD)

Rheumatic heart disease with mitral stenosis and regurgitation.
Subacute bacterial endocarditis.

DR. RICHARD C. CABOT'S DIAGNOSES

Subacute bacterial endocarditis of the mitral valve, possibly of the aortic valve.
Chronic endocarditis of the mitral valve.
Hypertrophy and dilatation of the heart.
Chronic passive congestion of the lungs.
Infarct of the spleen.
Perhaps peritonitis due to perforation of the spleen.
Possibly infarcts of the kidneys.
Septicemia, streptococcus, viridans.

ANATOMIC DIAGNOSES

1. *Primary disease.*

Subacute bacterial endocarditis of the mitral valve.
Chronic rheumatic endocarditis of the mitral and aortic valves; aortic stenosis.
Infarct of the heart.

2. *Secondary or terminal lesions.*

Chronic passive congestion of the lungs.
Old healed apical tuberculosis.
Old caseous or calcified tuberculosis of the mesenteric lymph nodes.
Infarcts of the spleen and kidneys.

PATHOLOGIC DISCUSSION

BY TRACY B. MALLORY, M.D.

The primary disease here was bacterial endocarditis which affected the mitral valve, a very large shaggy vegetation there. There was an old rheumatic lesion of the valve which had not produced any stenosis, and there were a few old adhesions between the cusps of the aortic valve producing a slight degree of stenosis, but no acute vegetation on the aortic. The surprising thing about the case, of which there is no par-

ticular suggestion in the story, is that he had an infarcted heart. That is always a possibility in bacterial endocarditis. One of the branches of the left coronary artery had been occluded by an embolus, and there was a fresh infarct of the left ventricle and secondary pericarditis.

The lungs showed only chronic passive congestion and no evidence of tuberculosis except for an old apical scar. There was tuberculosis in the mesenteric lymph nodes, but it consisted entirely of old caseous and calcified lesions, no acute process whatever.

The surgeon who found evidence of fluid in the abdomen was certainly mistaken, as there was less than 50 cubic centimeters. There was a very large spleen weighing 307 grams and containing three infarcts. Both kidneys were somewhat shrunken and showed scars of very numerous small infarcts.

DR. CABOT: No nephritis?

DR. MALLORY: No, except for the infarcts, if that could possibly be called nephritis.

DR. CABOT: Nothing went through the spleen into the peritoneum?

DR. MALLORY: No.

DR. HOLMES: Was anything found to account for those masses?

DR. MALLORY: I think they felt the spleen. The liver was not enlarged. I do not think any of the glands were large enough to be felt.

DR. CABOT: We cannot blame ourselves at all for not getting that infarct in the heart. All it can mean to us is to remind us again of what no one has ever explained, that *we can have infarcts of the heart with no pain* and no other symptoms. When we have characteristic infarct-pain and make a diagnosis from that it is often right. But cases like this in which there is no pain are not infrequent.

Had he had an appendectomy?

DR. MALLORY: Yes.

DR. CABOT: It is interesting to me to speculate—I do not think we can do more—as to how long this thing had been going on. He had had night sweats for what looks like a period of nearly three years!

CASE 16092

CHRONIC ALCOHOLISM AND PNEUMOCOCCUS PERITONITIS

MEDICAL DEPARTMENT

An Irish-American mechanic forty-five years old entered June 20 complaining of abdominal pain. The history was given by a nephew.

The patient had always been a heavy drinker in periods of ten or fifteen days at intervals of several months. After his debauches he had attacks of moderate non-radiating abdominal pain lasting for two or three days. A year before admission, although he had given up alcohol, the pain occurred more often, coming on after meals, not definitely localized, always relieved by "Bi-sodol." He had lost about fifteen pounds in the year, and was now noticeably thinner. For the past month or two he had been pale and sallow, not definitely jaundiced. His abdomen had not been swollen.

The day before admission, while still intoxicated after several days' drinking, he was suddenly seized at 4:30 p. m. with agonizing pain in both lower quadrants, not radiating. He was pale, cold and clammy. His doctor said he was intoxicated, and gave morphia s.c. and a liquid medicine without relief. Two enemas gave no results. The pain continued all night, steady, not colicky. He continued alert, not drowsy or dull. His respirations were labored.

His family history is not important. A sister died of pulmonary tuberculosis, but the patient was not exposed.

His past history is negative except that he had "always" had a slight unproductive cough, due he believed to his heavy cigarette smoking. He had always been considered strong and vigorous.

Clinical examination showed a well nourished man groaning in pain. Both diaphragms were high. Expansion was good on both sides. Expiration was prolonged on the right. The heart was normal. The abdomen was very hard and distended. Fluid wave was doubtful on account of tenseness. The legs and penis were cyanotic.

Catheterization yielded 10 ounces of urine, specific gravity 1.020, the slightest possible trace of albumin, occasional leukocytes. Blood: leukocytes 7,100 to 2,450, 58 per cent polymorphonuclears, 43 per cent of these nonlobulated, immature forms; hemoglobin 70 per cent, reds 3,650,000, occasional basophiles, reds normal in size, shape and color; platelets normal. Hinton negative. Blood cholesterol 116 mgm.

When seen in the Emergency Ward the patient had a temperature of 100.1°, a leukocyte count of 7,100. He was sitting on the edge of the bed or occasionally pacing the floor complaining of violent lower abdominal pain. He did not appear to be in shock. Examination showed the abdomen to be very hard and moderately distended. He was taken to the wards and an abdominal tap done. 4,500 c.c. of fluid like cloudy lemonade was withdrawn. A web formed. The fluid had a peculiar odor, specific gravity 1.010, 4,000 leukocytes, 85 per cent polymorphonuclears, 15 per cent mononuclears, probably lymphocytes. A stained smear from an uncentrifuged specimen showed it to be loaded with Gram-positive diplococci. Culture showed pneumococcus type II. Two blood cultures showed the same organism.

After the tap the patient was very drowsy and slept, but could easily be roused. The blood pressure was 70/40. The temperature and respirations were normal, the pulse 120. There was generalized tenderness throughout the abdomen. No masses or localized spasm could

be made out. The evening of admission the patient died.

Clinical Discussion

BY A. V. BOCK, M.D.

NOTES ON THE HISTORY

Almost always we fail to make a diagnosis when a patient cannot give his own history,—when language difficulties interfere or he is too ill to talk. We are handicapped from the very beginning, because I think most diagnoses are made on the basis of the history; at least 75 per cent of history is about the proportion in diagnosis.

This story of drinking bouts and of gastro-intestinal upsets following is one we used to hear more often than we do now, in the days before prohibition, when the hard drinker throughout a great many years was more common than he is to-day. These men used to come in with bloody diarrhea and quite severe cramps in the abdomen,—real gastro-enteritis, if you can call it that. I should say the pain in this case was something of that sort.

I have never known a man with this history of periodic drinking who ever gave it up. There may have been such cases.

Bi-sodol is a commercial alkali. The story suggests somewhat the story of gastric ulcer.

The reactions to alcoholism are quite varied. But overindulgence in alcohol often does result in loss of weight and a great many other things that we run across clinically. A man who drinks as much as this often goes without any food at all. For example, practically the only cases of pellagra we see have an unusually long alcoholic history. We suppose that is due to deficiency of the diet, to living mainly on the alcoholic intake.

The fact that he was still intoxicated the day before admission does not sound as if he had stopped drinking.

NOTES ON THE PHYSICAL EXAMINATION

The physical examination does not help very much except that he has a very abnormal abdomen.

The smear is not remarkable except that there are a number of immature forms of white cells. The blood picture does not tell us very much. A man might have a cirrhosis of the liver with leukopenia, and this grade of anemia, 3,550,000, is a common finding in cirrhosis of the liver. That is about all we can say about it so far.

"Fluid like cloudy lemonade" is an interesting description of abdominal fluid. After finding such an amount of fluid in the abdomen one would think of ruptured gastric or duodenal ulcer. But the fact that so much fluid had accumulated in the abdomen since the onset of pain would it seems to me be very much against that diagnosis. The time that has elapsed from the onset of the pain until this tap is too short to allow the development of such an amount of fluid in peritonitis resulting from a ruptured duodenal ulcer. The specific gravity seems queer to me. One would expect a specific gravity of 1.020 to 1.022 instead of 1.010 unless this were chylous fluid, which it is not.

DIFFERENTIAL DIAGNOSIS

The finding of this type of fluid with these organisms in it seems to me to rule out the question of perforated viscus, because we should not expect type II pneumococcus producing peritonitis if we had a ruptured intestine or stomach. There would be a different type of organism and the fluid would be different in character. So we have to look for a cause of type II pneumococcus. We know that the lung is a common site for that, although one could have bacteria from local sepsis. One of our retired staff physicians developed cellulitis of the neck, had nothing in the chest and died of type II pneumococcus septicemia, with a white cell count down to 2,000. I would venture to hazard a guess that in spite of the fact that we have a very uncertain chest examination the man had pneumonia, presumably lobar pneumonia, because we seldom see type II pneumococcus septicemia or any other septicemia from bronchopneumonia. His alcoholism had done the usual thing, setting up no resistance, so the man probably has septicemia and peritonitis in response to an overwhelming infection from pneumococcus pneumonia, not reacting in any sense as one of us would with the same infection. We know that peritonitis due to pneumococcus may be present with very few signs. But I should venture a guess that the pathologist has found pneumonia of the lobar type in this man's lungs. I should incline to attribute the whole reaction, the rapid course of the peritonitis, to the fact that the man's alcoholism has so lowered his resistance to a fairly virulent infection that the course it has taken was fulminating. Probably he was walking about with pneumonia. That is a thing alcoholics have done before. I remember a soldier in France who came walking into the hospital with completely developed lobar pneumonia and died in twenty-four hours. He had been going about with it for four days. In spite of the fact that we have no physical examination to bear that out, I would not hesitate to make that diagnosis, pneumococcus lobar pneumonia and bacteremia with peritonitis. The character of the abdominal fluid is however against the diagnosis.

A Student: Would he be likely to have that in June?

Dr. Bock: He might have it at any time. A man in his condition may develop anything at any time of the year. In fact we have lobar pneumonia in any type of person in June. I do not think this is a fair chest examination to pass judgment on.

A Student: Wouldn't it be unusual to get

as much fluid as that with pneumococcus peritonitis?

DR. BOCK: I think it is the most tricky form of peritonitis we have to deal with. We see patients with few signs in the abdomen and fatal peritonitis just the same. The response to the amount of fluid I think is a very variable thing. You might say that a large amount of it in this case might somehow be connected with a cirrhosis of the liver in a chronic alcoholic. He may have a cirrhosis, but I do not think there is much evidence of it in the history as it is given. But if he had cirrhosis I think that might contribute somewhat to this amount of fluid.

A STUDENT: His alcoholic history would rather fit into the diagnosis of cirrhosis.

DR. BOCK: I do not think there is much evidence given in this record except the fact that his blood picture would satisfy that diagnosis. But his overwhelming infection and the fact that these people have very little resistance to infection anyway make me discount the blood picture.

A STUDENT: You made the remark that the specific gravity was rather low for peritonitis. Wouldn't it be more a mere transudate?

DR. BOCK: Yes. But even for a transudate the gravity is low, particularly low for a fluid full of pneumococci.

A STUDENT: Do you rule out ulcer altogether in spite of the symptoms,—pain after meals, and so forth?

DR. BOCK: He had enough alcohol, chronic gastritis, so-called, to produce the symptoms he had without saying he had ulcer.

A STUDENT: How do you account for the blood picture there?—the markedly regenerative blood?

DR. BOCK: I cannot say what those early nonlobulated forms are due to. That is the kind of picture that we see in rapidly regenerating blood. We should see it if he had a blood count of 30,000, 40,000, or 50,000. That is the type that you expect to see. This reaction is often seen in pneumonia or other infections producing leukocytosis. I cannot account for it in this case.

A STUDENT: Is resistance affected by chronic alcoholism?

DR. BOCK: I think resistance to infection in alcoholics is notably low. It is low to all other organisms.

A STUDENT: Doesn't this seem a sudden onset for pneumococcus peritonitis? It is stated as occurring at 4.30 p. m.

DR. BOCK: I do not think that gives the onset of the peritonitis. He may have pain at that time. He might have gone through the whole story without pain. If he had a ruptured viscus we could say that the pain occurred at the time of rupture. That may be what this man has had. But I cannot picture pneumococcus infection in pure culture resulting from that kind of process.

CLINICAL DIAGNOSES (FROM HOSPITAL RECORD)

Cirrhosis of the liver.
Septicemia.

DR. A. V. BOCK'S DIAGNOSES

Pneumonia, presumably lobar.
Bacteremia.
Peritonitis.

ANATOMIC DIAGNOSES

1. *Primary disease.*

Ulcer of the duodenum with perforation.

2. *Secondary or terminal lesions.*

General peritonitis.
Gastritis.

PATHOLOGIC DISCUSSION

BY TRACY B. MALLORY, M.D.

Dr. Bock has reasoned on this case exactly as did the hospital staff, both medical and surgical, that saw him. The man's local physician said he had a perforated gastric ulcer, and he was right, except that it was duodenal and not gastric. We account for the low specific gravity of the ascitic fluid by the fact that the ulcer was over two centimeters in diameter and he had been drinking quantities in his semistuporous condition, filling up his belly with tap water. He had a peritonitis which showed a pure culture of pneumococcus type II. He had an extreme degree of gastritis which I imagine was at least in part due to the same organism. It is distinctly unusual to have a peritonitis in a perforated ulcer showing this organism. I have never seen it before.

He did not have any cirrhosis. I think that is interesting. I have a distinct impression that there are two kinds of drinkers; one is the perfectly steady drinker, the other the drinker in sprees. We are pretty likely to get alcoholic cirrhosis in steady drinkers and less apt to get it in a man who drinks in sprees. On the other hand gastritis is the usual finding in this periodic type of drinking and relatively uncommon in steady drinkers who take half a pint a day over a period of years. Dr. Soma Weiss and Dr. G. K. Mallory have recently reported three cases of alcoholic gastritis in which they found erosions just at the junction of the esophagus and cardia. The patients had hemoptysis sufficient to make one think of cirrhosis and yet not one of the three showed any cirrhosis at all. It is not uncommon to get hemorrhage in gastritis, especially after this periodic kind of drinking. Have you noticed that in connection with this type of drinking, Dr. Bock?

DR. BOCK: I should think it is a fairly reasonable thing. We have very few chances to observe this type of periodic drinking. The pa-

tients we have in this hospital are generally the chronic type of consumers of alcohol.

DR. MALLORY: I think it is only fair to say that the patient's doctor possessed information we did not have. He had followed him over a period of years. I spoke to him at the time of the autopsy and he told me a good deal more than we got from the patient. In fact the story the patient told was different every time he told it. He was still well under the effects of alcohol, which made the diagnosis extremely difficult.

DR. BOCK: I always feel tremendously handicapped if I cannot talk with the patient myself and get the detailed sort of data that I consider to be important. This is exactly the kind of thing we are always doing when we do not have that type of history. For example, one can make more accurate diagnoses from time to time on his own private cases than going up on the wards and taking the findings of a group of men. A student takes a history, a senior or junior does the physical examination and two or three men contribute the laboratory findings. So that you haven't a picture constructed or painted by one person. That to me is always confusing.

This I should say was a very unusual case. If it had not been for the end finding of pneumococcus I should have felt more certain of perforated ulcer. But the other side of the history is so dominant,—his alcoholism and attacks of pain after these bouts,—that there is hardly enough for me to feel from what is given here that there is definite ulcer. If we could have talked with him before this acute thing came on we should have written a different history. We probably should have made the diagnosis of ulcer from the history alone.

A STUDENT: Was the gastritis of a type sufficiently bad to prevent the stomach having any acid in it?

DR. MALLORY: Yes, I think that probable.

A STUDENT: Is the low gravity of the abdominal fluid explained by the passage of water through the perforation?

DR. MALLORY: I think it certainly the most obvious explanation. The majority of these perforated ulcers show only a small, almost microscopic opening just at the point of the lesion, rarely more than a millimeter in diameter. This was a ragged hole over a centimeter in diameter.

A STUDENT: Was there anything in the respiratory tract?

DR. MALLORY: No, that was entirely negative.

MEASURES EMPLOYED TO PREVENT OR MODIFY MEASLES

The January *Bulletin of the New York City Department of Health* has issued a statement setting forth the comparative importance of the use of convalescents' serum and adult blood.

The important parts of the article are herewith reproduced:

THE USE OF WHOLE BLOOD FROM ADULTS

In 1920, Degkwitz, of the University of Greifswald, Germany, announced the results obtained by himself and associates in the use of adult blood in more than 1,000 cases. These results were very favorable, for even where the disease was not prevented, the injected adult blood lessened the severity of the attack.

These observations have been confirmed by extensive investigations carried on during the past few years by Parks in co-öperation with various well-known pediatricians in this city, in the course of which the relative value of convalescents' serum and of adult blood was carefully studied. Recently, for example, Dr. Alfred Hess used the convalescents' serum and the adult blood in a large institution for children, giving one portion of the exposed children the adult blood and the other portion convalescents' serum. The children receiving the serum developed fewer cases of measles, but those receiving the adult blood had modified measles. The latter outcome is preferable because those in whom measles was absolutely prevented developed no lasting immunity, and after one month were again liable to contract the malady, while the children who had modified mild attacks were rendered immune to measles for life.

THE NEW METHOD NOW ADVOCATED

On the basis of the experiences of the past ten years, and especially because of his own extensive investigation, Park now advocates the use of whole adult blood in a city-wide campaign for the control of measles. The technique of collecting and injecting the blood is extremely simple, and the most suitable donor is always one of the parents. The blood is collected in a sterilized glass syringe having a capacity of 30 cubic centimeters, and is most readily withdrawn from a vein at the elbow. The skin about the donor's elbow is cleansed in the usual manner and may be disinfected with iodine. A piece of rubber tubing wound around the upper arm causes the vein to distend so that it may readily be pierced by the sterile needle attached to the syringe. Thirty cubic centimeters are withdrawn and half of the blood is then injected intramuscularly into the child's right buttock and the other half into the left buttock. Coming directly from the parents no deleterious effects need be feared. If only a 20 cc. syringe is available, two drawings of blood are made, each one 15 cc. This is a detail which presents no difficulties.

While this dosage holds good for children under five years of age, it is advisable to use double the amount in older children. It must be borne in mind, however, that the object is not to prevent measles entirely, but to permit the development of a modified, milder type of disease. For this reason it is not advisable, even in older children who have been exposed to measles, to give more than 60 cubic centimeters of the parent's whole blood.

It is predicted that 1930 will be a "Measles Year."

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NEURASTHENIA VERSUS THE PRIMARY DEPRESSIONS

ONE of the commonest diagnoses in medicine is that of neurasthenia. The term, so loosely used in the past, is often a mere cloak for the physician in order to evade his duty of declaring a correct diagnosis. It is important to realize, moreover, that the use of neurasthenia as a dumping ground for our unexplained functional nervous disorders is not "good business" for any physician. This is pointed out very clearly in an illuminating address by Sir E. Farquhar Buzzard, Regius Professor of Medicine at Oxford,* who states that, contrary to what is generally supposed and to what might be expected, physicians are not really judged so much by the results of their treatment (which is fortunate) but by their knowledge and understanding of patients and their illnesses. "The quack must perforce depend on his ability to cure and, therefore, always and inevitably fails in the long run to keep the position he attains by means of a wealth of promise and a poverty of knowledge. We must rely on our ability to detect the origin of an illness, on our acquaintance with its natural progress and natural result, and on our experience of how these may be influenced by treatment, if we are to preserve our rôle of trusted guide, rather than that of healer, in times of trouble. This is an axiom which holds good in all fields of medicine, but which has peculiar difficulties as well as outstanding importance in its application to the handling of neuroses or functional nervous disorders."

We should learn, therefore, the difference between the two common types of depression, one of which is neurasthenia. Buzzard divides them into the primary or autonomous depressions and the secondary or reactive depressions of the anxiety state. He uses the term autonomous depression to describe many cases ordinarily but wrongly considered as neurasthenia. These, he says, are constantly met with in everyday practice and vary in degree of severity from the individual who alternates between bouts of cheerfulness and activity, on the one hand, and periods of moodiness and inertia, on the other, to the individual who may be considered as suffering from mania or melancholia. The latter group are usually obvious and find their way into private or state hospitals. The milder cases, however, are those usually treated at home under a blanket diagnosis of neurasthenia. The main features of autonomous depression are the fact that the depression is usually deepest in the early morning and it is not influenced to any extent by external factors. It is often described by the patient as a cloud. It is a thing of itself and is the result of a loss of all feeling. The patient is quite unable to believe that recovery is possible, but his insight is good and his intellectual perception quite acute. His attitude towards his illness is self-accusatory and he is often unable to think or talk for a moment of anything but his misery and its suspected cause and consequences. Although the onset of illness may follow a period of overwork and anxiety, such possible exciting causes are frequently absent and the disappearance of an anxiety has no effect on the course of the illness.

On the other hand, the depression of anxiety neurosis, which should be correctly termed neurasthenia, is a variable quantity and can be favorably influenced by environment or by a restful night. It is regarded by the patient as the result of his illness, not as an essential part of it. The illness itself can be clearly traced to exogenous causes, but the patient does not recognize these as responsible, although he casts the blame for it away from himself. The real anxieties and fears at the bottom of his condition are often difficult to elicit and may only be reached after much probing and after a state of confidence has been established between the patient and the doctor. The patient may express fears about going out of his mind or that

The Lancet 1930, 218:1.

he has a tumor of the brain. He is irritable, sleeps badly, complains of a feeling of pressure on the top of his head and a tight band around his temples.

The differential diagnosis of these two conditions, however, is not always easy. A single interview with a patient may be all that is necessary, but often several interviews or more continuous observation are required for that purpose. Some cases, on the other hand, have a characteristic history of periodic or sometimes cyclic recurrences of depression in the family, and this naturally points to a diagnosis of primary or autonomous depression. Both states may appear in the same patient and thus the diagnosis has, in certain cases, many difficulties. Usually, however, it can be clearly made.

Depressions are exceedingly common in medicine, perhaps even more common in general practice than dyspnoea or dysmenorrhea. They are to be counted among the more poignant forms of human suffering and may often actually head the list.

The prognosis in both the reactive or secondary and the autonomous or primary types of depression is good, provided that care and treatment of the patient are wisely and skilfully conducted. A great source of worry in the temporarily depressed patient, of course, is the possibility of suicide, which must always be considered in any case. The length of a depression of this type varies greatly; it may be a matter of a few weeks or many months, or even years.

The treatment of the two conditions is briefly summarized by Buzzard in the following succinct statement: "The neurasthenic needs treatment, the depressive patient needs care." By this he means that the neurasthenic should have active psychotherapy and in a few selected cases, psychoanalysis. The latter form of treatment is, however, too prolonged and too expensive to commend itself to all patients and it is more than doubtful whether it can be regarded as essential to the restoration of health of any but exceptional cases. It is necessarily not a method which can be carried out in general practice, whereas psychotherapy, using the word in its wider sense, is, or should be, part of every doctor's equipment. Psychotherapy should include a thorough investigation of the patient's mind.

The treatment of the primary or autonomous depression is quite different. It must be recognized that nothing, so far as is known, will shorten the attack, but that much can be done to make it safe and comfortable for the patient. We ought to recognize also that we must not always expect to gather the fruits of our labor. Buzzard quotes a paper by Dr. T. A. Ross as illustrating this point: "We may sow and another man reap and obtain much credit which in no way belongs to him. If compensation is necessary to the doctor, he will get it often from some other man's cases. After many months of unwearied attention to a patient suffering from the disease, it often happens that the friends of the patient think a change desirable; they have been told by so many people that this, that, or the other person is the man for such cases, and perhaps soon after the change the long-looked-for cure takes place. But there is an interchange of luck in this respect and the writer has often received credit for the recovery when all that had happened had been that he was the man in attendance at the end. Such undeserved praise or dispraise comes from the friends; the patient always knows better, and there is no class of patient from whom more sincere gratitude is obtained than from a depressive." The patient should be visited fairly frequently, daily or every other day. The history should be taken in the same way as any other history and the physical condition thoroughly investigated. The patient should be asked whether he has any anxieties; if he says not, the statement should be accepted without question; it is essential that nothing in the nature of psychological probing should be done to patients in this group. He will, without doubt, be a patient who is, for the time at any rate, filled with a sense of inferiority and probing into his past may tend greatly to increase this and turn a mild case into one of great gravity. Such a procedure may often turn a non-suicidal patient into one where the danger is present.

These latter warnings are strong arguments in favor of making the correct diagnosis and in the opinion of Buzzard, against the use of any form of psychoanalysis in the treatment of autonomous depressives. For the rest, the treatment of the primary depressive is largely symptomatic. He is easily tired and certainly made worse by fatigue. Sedative drugs are usually indicated. Perhaps the most important part of the treatment is the daily visit of the medical attendant, who should repeat his assurances frequently that the patient's condition is a well recognized illness and one that invariably ends in complete recovery. One day the doctor may find his patient quite well, the cloud lifted and peace of mind restored. Recovery is not always, however, so dramatic; it may be gradual and sometimes the cloud may lift for twenty-four hours and fall again. It is impossible to predict the duration of the illness and it is generally wise not to make the attempt.

The ideas expressed above are largely those culled from the very important paper by Buzzard. That we should recognize the difference between primary and secondary depression seems obvious when the facts and arguments are marshalled before us, and yet both the general practitioner and the specialist are continually failing to make this differential diagnosis. Buzzard estimates that out of the 100 patients sent him suffering from depression, insomnia, loss of concentration and fatiguability, 99% were labelled neurasthenia or neurosis and but one manic depressive psychosis. After his investiga-

tion he found that the proportion was nearer 50-50. In view of the fact that the two diseases require entirely different treatment, such a large proportion of mistakes in diagnosis should not be allowed to continue.

NOMENCLATURE OF CAUSES OF PUERPERAL MORTALITY

A RECENT editorial in the JOURNAL[1] characterized the quoting of the figures of the Massachusetts Department of Public Health on Cesarian section as a cause of death as "unfortunate". The infelicity of the quotation referred to lies in the lack of cogency of any argument based on statistics so misrepresentative of pertinent facts as these are bound to be. A letter[2] concerning the editorial pointed out that the implied criticism was misdirected as the State Department of Health simply followed the "International Classification of Causes of Death", and went on to say that it would be the "height of stupidity not to use this classification". Reference to the "Classification" reveals the possibility of a still higher height of stupidity, namely, calling the "classification" good. "The International List of Causes of Death makes no pretension of being a proper nomenclature of diseases or of including a scientific classification of diseases".[3] Since this is its own admission, one is not unduly critical if one says it is not illuminating, and at any point in the List asks for something better. The List is an aggregation of words or terms used, so that compilers of vital statistics, who are presumably not trained in medical nomenclature may not be wholly at a loss. The causes of death in the puerperal state (in the broad sense including pregnancy, parturition and the postpartum period) are listed as "accidents of pregnancy", "puerperal hemorrhage", "other accidents of labor", "puerperal septicaemia", "puerperal albuminuria and convulsions", "puerperal phlegmasia alba dolens, embolus, sudden death", "following childbirth (not otherwise defined)" and "puerperal diseases of the breast". "Childbirth", "Confinement" and "Parturition" are found under "other accidents of labor." It is, however, not necessary to multiply instances when the List says of itself that it is not scientific.

There can be no objection to an effort to formulate a simpler, more nearly scientific classification. Most puerperal deaths are due to one of three causes: infection, hemorrhage, toxaemia. There is, to be sure, a considerable number of other causes concerning which one desires more precise information, as "embolism", "shock", "heart disease", but the three causes mentioned cover most cases. One wants to know about infection, of what organ or structures; about hemorrhage, from what organ or structures; about toxaemia, affecting what organs or structures. In every case, was any operation performed; if so, when and what.

At present the operation of cesarian section is receiving much attention; it is so easy to perform: the easiest way for the physician to deliver the pregnant woman; it is so safe for the baby, and for the mother, if one thinks only of the danger from hemorrhage and shock. There remains, however, the very grave danger from infection, for the satisfactory prevention of which no technic has been devised. Under conditions which seem most favorable it appears unexpectedly and exacts its fatal toll. This means that we do not as yet understand the conditions with which we are dealing. Under conditions less propitious than the most favorable, it is an important, even appalling factor, and probably much more frequent than is reported. For example, "acute dilatation of the stomach" and "paralytic ileus", should not be regarded as satisfactory explanations of death unless culture from the peritoneum or other postmortem examination excludes infection of that structure.

There is great interest in maternal mortality in Massachusetts at the present time. Would it not be a valuable part of the study of that condition if those persons interested could contribute a more nearly scientific nomenclature and classification of causes of death? It would be a contribution highly and widely appreciated and might, in time, clarify even the International List.

REFERENCES

1 "Death at Birth." N. E. J. M., Dec. 19, 1929, p. 1262.
2 An Explanation of the Use of a Mortality Classification. N. E. J. M., Jan. 16, 1930, p. 142.
3 The title page of the "Classification" states "Manual of the International List of Causes of Death based on the Third Decennial Revision by the International Commission Paris October 11 to 15, 1920. Washington: Government Printing office 1924."

BOSTON MEDICAL LIBRARY

The support of institutions devoted to the service of the medical profession should claim the attention of every practitioner. The Boston Medical Library has for half a century kept on its shelves the important current periodical literature and new books upon medical and scientific subjects. These are at the disposal of anyone who needs them. The unrestricted income from endowments and income from membership dues are not now sufficient to enable the Library to purchase the necessary periodicals and current books. Failure to keep up with the current literature is a serious matter for it is almost impossible to maintain complete files once they are allowed to lapse and besides, the expense of doing so, when possible, is far greater than if the regular subscription had been kept up. An increase in the dues is not deemed advisable at this time, though they are less here than is the custom with other large Medical Libraries. The Executive Committee of the Boston Medical Library is adopting the only other method that seems feasible under the circumstances and that is making an appeal for a

considerable increase in the Fellowship membership from Metropolitan Boston with the feeling that interest and pride will prompt many physicians, not now members, to enroll. Attention is called to a more extended statement of the necessity for this appeal in an article elsewhere in this number of the JOURNAL.*

THIS WEEK'S ISSUE

CONTAINS articles by the following named authors:

PITTS, HERMAN C. M.D. Yale Medical School 1900. F.A.C.S. Surgeon-in-Charge of Cancer Service, Rhode Island Hospital. Address: 68 Brown Street, Providence, Rhode Island. Associated with him is:

JOHNSON, HELEN R. (MISS) A.B. Mt. Holyoke 1921. M.A. Brown University 1927. Engaged in Cancer Research Work, Biological Laboratory of Brown University. Address: 91 Waterman Street, Providence, Rhode Island. Their subject is: "A Comparative Study of Body Fluids in Cancerous and Non-Cancerous Individuals." Page 415.

PAINTER, CHARLES F. A.B., M.D. Harvard 1895. His subject is: "Boston Medical Library." Page 424. Address: 520 Commonwealth Avenue, Boston, Mass.

GREENOUGH, ROBERT B. A.B., M.D. Harvard 1896. F.A.C.S. Visiting Surgeon, Massachusetts General Hospital. Consulting Surgeon, Collis P. Huntington Memorial Hospital. His subject is: "Cancer Clinics." Page 426. Address: 8 Marlboro Street, Boston, Mass.

The Massachusetts Medical Society

SECTION OF OBSTETRICS AND GYNECOLOGY

Louis E. Phaneuf, M.D., *Chairman* — Alonzo K. Paine, M.D., *Secretary*

Frederick J. Lynch, M.D., *Clerk*

What are the indications for the use of Radium in Gynaecology?

It is not generally understood as yet that radium is used for the treatment of other diseases than cancer in the specialty of gynaecology and the contraindications to its employment are still less realized.

Most authorities agree that it is the best treatment for cancer of the cervix because it cures as large a percentage of cases as operation and has practically no mortality, as compared with a general average of about ten per cent. from operation. Further it cures some cases which are inoperable or in which operation would be merely a palliative. It should be used cautiously when the bladder or rectal wall is infiltrated with cancer because the necrosis may cause a fistula, with its accompanying discomfort, much earlier than the normal progress of the disease would. In such cases the use of radium is a palliative to relieve discharge by destroying part of the tumor. If, however, there is reason to suppose that the disease can be cured, at the expense of getting a fistula, the full dose may be used because the fistula can be closed later by operation.

Radium acts in cancer by destroying the tumor cells and causing the formation of connective tissue which may incarcerate cells not destroyed. There is some evidence to show that it is more effective in the tumor with large amounts of stroma tissue. The technique of its application is a specialized matter, with some differences of opinion, which is not germane to this short discussion.

In cancer of the fundus of the uterus the situation is quite different because the exact situation and extent of the disease cannot be determined so the application of radium is relatively blind. Further this type of tumor metastasizes late in its course; the fundus is free of surrounding vital structures; an ordinary complete hysterectomy, not a difficult dissection of the pelvis, is the operation required; and metastases occur in the ovaries in ten per cent. of the cases which could not be reached by radium placed in the uterus. Therefore operation consisting of the removal of the whole uterus, tubes, and ovaries is the best treatment.

Radium has a place in the treatment of fibroids of the uterus when there is no need of saving menstruation or fertility. It is necessary to destroy the internal secretory function of the ovaries to obtain the required effect on the fibroid. There are several contraindications to its use in this disease. Tumors larger than a four months' pregnancy are better treated by operation because, although they shrink in size after radiation, they may not do so enough to relieve pressure symptoms, and also such tumors are more likely to have the various degenerative changes of an aseptic, necrotic character which may be increased by radiation. Pedunculated fibroids should not be radiated for fear of causing necrosis by interference with their blood supply. The presence of ovarian cysts or pelvic inflammation is a distinct contraindication because both ovarian cysts and pelvic inflammation are very likely to be made worse, that is, the cysts increase in size and the inflammation flares up. If the patient has prolapse or there is any other reason for doing an abdominal operation, then operation is the method of choice for treating the fibroid. No case should be radiated without a careful examination under anaesthesia with a curettage and it should be kept in mind especially that cancer may be present and must be ruled out by microscopic diagnosis of the cervical tissue and endometrium. In other words fibroids which form a rather symmetrical mass not larger than a four months' pregnancy and not accompanied by other pathological processes, may be treated by the use of radium.

*Page 424.

The radium is usually put in the uterine cavity and acts by destroying the internal secretory function of the ovary and increasing the amount of connective tissue in the tumor. The tumor atrophies as do the genital organs also. Therefore radium should never be used when menstruation or fertility is to be conserved and it is not applicable to the treatment of fibroids during the child-bearing age if a myomectomy can be done.

There are types of functional menorrhagia that usually occur towards the beginning and end of menstrual life which are particularly amenable to radium treatment. If, in such a case, no pathological cause such as fibroids, polyps, ovarian tumors, and pelvic inflammation can be found at a careful examination under anaesthesia, radium may be used. This must always be preceded by a careful medical examination to rule out constitutional causes for the flowing. Among such are blood diseases and hypothyroidism.

Towards the beginning of menstrual life the question of future child-bearing enters this discussion because it is known that radium obtains its effects by destroying the developing follicles which contain the ova in the ovary. If too large a dose of radium is used the menopause may be brought on but this does not happen now that the dosage is standardized. The fear has been that an ovum might be damaged by the treatment and later fertilized, with the production of a mal-formed child. There is no record of such an occurrence but there is some evidence to show that early miscarriages are somewhat more frequent than normal after radium treatment. On the other hand there are several reports of the birth of mal-formed children after radium has been applied while the patient was pregnant. This is also true of x-ray treatment and is a further argument for careful diagnosis before treating. It may be added that, when using x-ray, which usually requires several applications, the patient should be especially warned against becoming pregnant while the treatment is going on.

Towards the end of menstrual life the possibility of cancer as a cause of the menorrhagia increases and it must be ruled out before radium is used, because cancer of the cervix requires a special form of application with a larger dose than does menorrhagia and cancer of the fundus is better treated by operation, as we have said.

Cancer of the vagina may be treated with radium but it must be kept in mind that the tumor may be metastatic from the cervix or fundus of the uterus. There is danger of causing a fistula so the situation should be explained to the patient or family beforehand in order to protect the surgeon.

Cancer of the vulva should be treated by operation because radium causes an intense slough which takes weeks and months to heal and also does not reach the glands in the pelvis, groins, and Scarpa's triangle.

It is evident from what has been written that the use of radium in most cases depends on accurate diagnosis which can be obtained only by an examination under an anaesthetic with a curettage and microscopic diagnosis. Also that the decision may be to employ surgery rather than radium and, further, it is in the best interest of the patient that the diagnosis and treatment should be done at one time in order to prevent spreading the disease by manipulation if cancer is found. Therefore the patient should be treated in a hospital, equipped with a laboratory and a pathologist, by a surgeon capable of using radium or operation, whichever is indicated.

VISIT OF DR. WELCH TO BOSTON

On February 5, 1930 John Ware Hall, Boston Medical Library, was full to capacity with physicians and friends who came to listen to Dr. William H. Welch of Baltimore. Dr. Welch was introduced by Dr. Harvey Cushing who presided at the meeting.

Dr. Welch came to Boston to present an oration on the importance of medical libraries to the medical profession. This was particularly appropriate in view of the campaign which is now being conducted to raise money for the Library and the Massachusetts Medical Society. It is with great pleasure that the JOURNAL is able to present Dr. Welch's address.

MEDICAL LIBRARIES AND THE PROFESSION

WILLIAM H. WELCH, M.D.

Nearly thirty years ago, Dr. Osler gave one of his most attractive addresses in this room at the dedication of the building in which we are now. His address was entitled "Books and Men". He began by telling his own feelings—"tinglings" he called them—about the accumulation of wonderful treasures housed here. He immediately said that these feelings of envy were counteracted by a sense of gratitude. Not long after his student days, 1876 I believe, shortly after the foundation of the Boston Medical Library Association, he took advantage of a visit to Boston in order to make certain bibliographical researches and he always, from that time on, was grateful.

I came likewise with a sense of envy for the treasures which are housed here but I also have my sense of jealousy and envy counteracted by an opportunity to express my gratitude. I heard this afternoon from Mr. Ballard that he had received a telephone call from the Welch Library in Baltimore asking for the book "Acta Tuberculosa Scandinavica" which we did not have but which you have here. That was an S O S call from Baltimore from the Welch Medical Library, so I have the opportunity to express my feelings

of gratitude, thankfulness and indebtedness to this library. This is only one of the many instances where you have been good enough to supply our needs in Baltimore.

I seized the invitation conveyed in person to me by Dr. Quinby to speak on this occasion with the impression that I was to be only one interjecting a few remarks. I must, therefore, apologize for coming here with the expectation of merely filling a gap. But the fact that I did come was one of many indications to show I was eager to seize opportunities to visit Boston. They have been less frequent in recent years. I have spoken more than once in this hall. I like to recall an occasion when I gave the Shattuck Lecture before the Massachusetts Medical Society.

When Dr. Quinby asked me to speak, I thought of a subject that would not limit me to anything and yet would embrace everything—Libraries and the Medical Profession—without full information as to the nature of the occasion. Now the occasion, as you all know, is for the purpose of arousing still further interest in the members of our profession in endeavoring to meet what seems to me, after my visit to the library this afternoon, a need so urgent that I question whether there has ever been a more urgent one. It is nearly thirty years since the housing of the library in this building which ranks among the foremost in this country. It is fifty years since the creation of the Boston Medical Library. In those years it has become one of the four great medical libraries of the country. The Surgeon General's Library, The Library of the College of Physicians in Philadelphia, the New York Academy of Medicine and the Boston Medical Library are the most outstandingly important libraries for the specialty of medicine.

One cannot realize without going around the building the terribly crowded conditions. It is impossible to observe the books piled up everywhere in the halls without realizing how tremendous has been the growth of the library and it has created a need which I can hardly exaggerate. I do not question the propriety of my attempting on this occasion to point out the importance of your collection of books and the great service of the library. Considering the matter, possibly this may have occurred to those who asked me to come,—what is familiar to you may have a certain significance from someone who can speak as an outsider. The fact that one comes who is interested in books and libraries may have a significance. What I say from outside may have on the public a little more significance than if it came from your own people pleading your own cause.

I have been interested in libraries from my student days. In a sense, a library is my Alma Mater. I had a rare experience when a medical student. I was graduated in medicine in 1875 at the College of Physicians and Surgeons in New York. Those were the days when you subscribed for two courses of lectures, seven tickets. The lectures were the same each year for two years, the time of study being three years, one year being, however, under a preceptor. My father, a country doctor in Connecticut, was my preceptor.

During my two years at the medical school, I had the good fortune to come to know Dr. Sabine, the Adjunct Professor of Anatomy at the College of Surgeons, who took an interest in me and provided this opportunity. He saw that I was interested in books. At that time, the library was open only one or two hours during the day and nobody ever went there. I was given a key to the library and could go there morning, noon or night and sat there often until midnight. I spent more time in the library than in the lecture room and the dissecting room, and to the library of the New York Hospital, I feel a great debt of gratitude. It familiarized me with books, especially with French and German bibliography and I come, therefore, with a deeper or different kind of sense of gratitude to a library—my Alma Mater. I doubt if anyone in this room could say they got an education in a library. I spent two years in succession in a library and most of the time was taken up with the use of books.

You have wonderful history and wonderful traditions here. I knew the library in the days of Dr. Chadwick and knew him very well. It was a friendship which was of mutual benefit to each and contributing to the improvement of the Boston Medical Library. You have had here the qualities which go to build up a great library, an interest in medical history. Librarianship now has become really a very technical science. I was never interested in it myself until recently and claim no mastery of it. All the technique of cataloguing, all the details are developing to a great extent in this country. In Boston, the decimal system called Science and Art of the Library was started by Dr. Dewey. Dr. Chadwick was also the bibliophile, that is, interested in everything relating to the collecting of books. I am very much interested in collecting bibliography, especially incunabula. Chadwick was a great collector. I do not know if he ever had an equal in gathering books from different sources. You will perhaps remember that string of adjectives that Osler applied to Chadwick. He had that art of gathering in what seemed to be at the time unconsidered trifles which might have been in the attic or in the basement, many of the treasures were brought in by Chadwick in that spirit which was so characteristic of him. Only experience has indicated their very great value. Now this is not only a wonderful collection here. Your policy has made it widely useful. I do not know whether there is any other library which can be said to be more useful from the liberal policy which has been followed in Boston and the surrounding region.

I do think on this occasion that perhaps the point should be emphasized, that the library is an active force. It is a real genuine active force in the life of the profession and, therefore, in the life of the community. It is an active force in many ways. Of course, it is obvious that the interest in books, reading, the love of medical history—all that belongs to the cultural side of medicine—humanistic. As medicine becomes more scientific, I should say there is greater need of cultivation of the humanistic side. In the early days, the Johns Hopkins Medical School was one of the first to insist that students coming to it should have had a thorough training in those scientific subjects underlying medicine such as chemistry and biology, before beginning the medical studies, and I was one of those who used to stress so much this scientific premedical training of students. I think the time has come when the emphasis is no longer there but should be placed on the humanistic and cultural aspects, and these can only be adequately acquired in a medical library.

Then you have an advantage in a general medical library as distinct from a library attached to a medical school or a university. My latest job, and last one, of course, is trying to get the Department of History of Medicine interested in a library in Baltimore. Each department has got to have its own library. But there are great advantages in general medical libraries, such as you have here in Boston.

What I wish especially to emphasize on this occasion is the way in which the library serves as a center, a nucleus for the devotion and the activities, both personal or individual of the members of the profession. It is like your fireside, your home, as it were. Without necessarily very concentrated effort, almost involuntarily or incidentally, there gather around such a library as the nucleus, all kinds of interesting and important professional activities.

What you need here is perfectly obvious,—an expansion of the building. You have considered that problem and are now in a campaign. If I am here, it is only to help on that campaign. If my presence here or any word I can utter can further the interest of that campaign, I am glad to be here to say that word. You have had to crowd out certain activities here. This meeting, I believe, is under the direction of three medical societies, as well as of the Boston Medical Library Association. I understand that the Massachusetts Medical Society, the most important medical society in the State would like to be housed here. My plea is that the library should be a live personal force in the profession. When I say all that, of course it is more than an appeal, which is hardly necessary, because I understand as a profession, the generosity has been great. The amount needed is between $600,000 and $700,000 in the way of extension. There is sufficient ground. The community is interested in the quality of the medical profession. It is interested that that profession should have access to the best knowledge of the day and the best skill of the day, and that will not be the case unless they have access to good books. A good library is an extremely necessary factor in the getting of good physicians. This is where the Public Health comes in. I am told that my predecessor, Dr. George Vincent, chose as his theme the relation of your library to the future of Public Health. I doubt whether there is any subject making a stronger appeal than this library. If Mr. Carnegie were alive today, I am sure his response would be very generous as he was greatly interested in libraries. That is an appeal which I have always stated seems to be surpassing in importance, at least in urgency, at this time. Ask anyone who is doubtful about the matter to come here and see the terrible conditions existing in the housing of the books. They are not very easily accessible. You know as well as I that it is one of the most urgent needs of the profession today. It is an appeal not only to you as members of the profession to do your duty in the library but for you to interest the men with whom you come in contact who are able to help in this cause.

Following Dr. Welch's oration Dr. Cushing introduced Dr. Cheever who addressed the meeting.

Dr. David Cheever expressed appreciation of the gracious tribute paid by Dr. Welch to the medical profession of Boston and of New England. He said that the profession of today has inherited many fine traditions from its forebears, but especially three outstanding institutions—the Massachusetts Medical Society founded in 1781; the BOSTON MEDICAL AND SURGICAL JOURNAL, lately re-christened the NEW ENGLAND JOURNAL OF MEDICINE, established in 1828; and the Boston Medical Library founded in 1876. "These are the most cherished institutions of the profession today. The library did not spring fully equipped from the heads of Oliver Wendell Holmes, James R. Chadwick and George C. Shattuck and their fellow enthusiasts as Pallas Athene sprang full panoplied from the head of Zeus; on the contrary it was hard work year after year and devotion and persistent enthusiasm which made it possible. The profession of today is bound in honor in its turn to devote to these institutions the hard work and support that are necessary to their continued existence and growth."

"Imagine the medical profession of Boston", said Dr. Cheever, "existing without a medical library. It would be like a decerebrate animal."

"The members of our profession," said Dr. Cheever, "have not backed up this joint undertaking of the Medical Society, the JOURNAL and the Library as effectively as they might have done. A large number of doctors, it is true, have contributed generously in proportion to their

means but only a comparatively few have worked to obtain contributions from laymen. Too many have done nothing at all in seeking subscriptions, not from indifference, I believe, but from the feeling that they were less adapted than someone else to solicit subscriptions,—that someone else will do it better. If each member of the Library were to secure one thousand dollars our goal would be reached, or if each one of the members of the Massachusetts Medical Society were to secure one hundred and sixty dollars the thing would be done. Of course, not each one of us can do nearly as much as this but some can do a great deal more. We cannot help succeeding if everybody does his part,—especially those who are able to present their cause to generous laymen. I think that our trouble is that we permit ourselves to feel apologetic when we ask our friends for help and an apologetic attitude easily becomes translated into an inferiority complex. An inferiority complex is more likely to excite scorn than it is to secure assistance. We doctors are no better and no worse than any other similar group in the community but we have the privilege of practising one of the noblest of the professions and on the whole we give to the public more than we receive. We have a right to ask for help in order that we may prepare ourselves to give still more. Dr. Welch's words make me feel as though I were experiencing conversion at a revival meeting and from now on I am going to develop a superiority complex and go to people with the conviction that I am giving them an opportunity to support an institution that any public-spirited citizen ought to be glad to help."

Dr. William C. Quinby, Metropolitan Vice-Chairman of the United Campaign, was then introduced. Dr. Quinby gave a brief history of the Library and showed lantern slides of the first library on Hamilton Place, then the larger library on Boylston Place and finally the conditions of the interior of the present library. This was a startling demonstration of the great need of the Library for the further accommodation of its treasures. He stated: "About $215,000 has been raised, of which only a little more than half has come from non-medical subscribers. Very few people have refused when they were asked. It is perfectly clear why we have not already secured the full amount. It is simply that the people who will be glad to give have not been asked.

"Our getting together tonight cannot be rounded out if I do not ask you all to join the cause. That is what we need, more workers who are willing to ask people to contribute. If you will do that this addition which is so badly needed will be built."

Dr. Quinby was followed by Dr. Timothy Leary who expressed his appreciation of the importance of medical libraries to the medical profession and urged the enthusiastic support of the movement now underway. His remarks were as follows:

I am grateful for the opportunity to express publicly my gratitude to the Boston Medical Library and its very efficient staff for the opportunities it has given me. It is, to my mind, impossible to conceive of a progressive medical profession without close association with the literature of the rapidly growing subject. Interest in medical literature, or the lack of it, is, to my mind, a measure of the progressiveness of the practitioner of medicine.

There is one thing, which Dr. Welch did not mention, which adds a little to the element of adventure to the searching of the literature. I have recently made a rather exhaustive study of the literature dealing with alcohol. In no subject having a medical relation is there a greater mixture of fact and fancy than in connection with alcohol. The separation of fact from fancy is an engaging occupation. References crop up to apparent facts which are passed along from one writer to another without specific indications of the original source. The chasing to their lairs of such elusive and sometimes doubtful facts is just as fascinating as the attempt to pick the murderer in modern detective novels—one of the most popular indoor sports of the day.

With a large meeting, such as this is, it should be possible to add many members to the Boston Medical Library Association. Many doctors come to this building to attend medical meetings who never make their way into Holmes Hall. There is an impression of exclusiveness—of a possible cold frozen Boston reception of intruders, particularly if they are not adepts—which has spread somewhat among those members of the profession who most need the stimulating influence of intimate contact with medical literature. This mistaken impression should be corrected. Nowhere will the seeker for aid meet with a more helpful attitude, a more kindly welcome, than from the staff of this library.

The physical needs of the institution require no stressing. They are manifest to anyone who looks about the halls. These needs must be cared for if the purpose for which this library was established is to be satisfied, and if the doctors are to grow mentally.

I bespeak for the institution the enthusiastic aid of the profession, and the financial assistance of that highly intellectual Boston lay public, which can best appreciate the needs of the library and the profession.

Dr. Bartol, who is President of the Library, spoke briefly of the advantages which promised to result from drawing together two important organizations dedicated to the advancement of medical interests. He prophesied that the Library and the Massachusetts Medical Society with headquarters under the same roof would exert an increasing influence on professional development, and he maintained that motives far higher than those of selfish concern should

lead to greatly increased membership in the Library, and a strong and loyal support of both institutions.

In closing the meeting Dr. Cushing spoke as follows:

After hearing what has been said some of us may well feel conscious-smitten for not having taken a more active part in the campaign for funds to rehabilitate this institution which is the central point around which the professional activities of all of us, consciously or unconsciously, necessarily revolve. The measure of support given to its local medical library may be taken as a measure of the professional solidarity, spirit and co-öperation of the doctors in any community.

There is no part of the country in which our profession for generations has attained and held a higher position than in New England, no state that has set higher standards of professional conduct than Massachusetts, no city in which doctors as a class have had a finer reputation or been held in greater respect than in Boston. It is unthinkable that through indifference and loss of local spirit we should permit the leadership which we have so long held, or in which we have at least shared, to pass to New York, Pennsylvania, Maryland or Illinois. To lose sight of this place as the real medical centre of the community, in our altogether proper programmes of building up and improving other subsidiary medical centres of activity, would be nothing short of calamitous. Our importance and strength as a local group of medical men, irrespective of school or hospital connection or the direction of our individual activity, depend more upon this institution than all others combined. In union there is strength, and this is the only visible tie that holds us unselfishly together.

We possess here in common a valuable, a highly useful and constantly growing collection of books, second only in importance to the collection in Washington. In our present quarters we are no longer able to assimilate them. But there is something more important than this. The library is one thing, the "Library Association" another; and from this place the leading strings of all the activities of our guild should radiate. Through this "Association" and the forum which it provides, knowledge of medical progress is disseminated, standards of professional conduct are upheld, our united support of public health measures is kept secure, our traditional support for all charitable enterprises in the community kept constantly on a high plane. It is only when these obligations, on our part, are lived up to and emphasized by word and deed that we can justifiably go to our patients and lay friends and solicit their aid in our enterprises.

Every doctor in the community should automatically become a member of the Library Association irrespective of whether he ever attends meetings or has occasion to consult or utilize the books in our possession. Should he not be a member, it may be assumed that there is either something wrong with him in his want of co-öperation, or something wrong with our organization. In this lies our professional strength or weakness. Only by a full membership can we, for the protection of the health of the community, exert that sort of concerted influence that we are often called upon to exert in matters of legislation.

Considering the expense of their training, many practising doctors gain a precarious livelihood and nevertheless give largely of their time and energy to the poor and needy with no expectation of reward other than the satisfaction of living up to the Golden Rule. Others possibly more fortunate must carry the chief financial burden and many of them will come to double the contributions they already may have made; but all will certainly wish to add something to the fund if for no other reason than as a matter of professional insurance.

That the doyen of our profession, nearing his eightieth birthday, should have been willing to come here in midwinter from Baltimore to address us this evening may well serve as an example to us all. A comparable exhibition of interest and sacrifice of time on the part of each member of the Library Association, and our goal will assuredly be attained.

MASSACHUSETTS LEGISLATIVE NOTE

Dr. Woodward's bill which provides vaccination of pupils in private as well as in public schools has received the endorsement of a majority of the Legislative Committee on Public Health and now goes to the House. Four members of the Committee dissented from the endorsement of the bill.

Circulars, in which appears the name of Leland Powers, are being distributed. This anti-vaccination propaganda should be met by a general educational campaign by physicians. Will you write to or interview your Senator and Representative?

MISCELLANY

CO-OPERATION WITH OFFICIAL AND UNOFFICIAL AGENCIES

In a report recently forwarded to Congress, Surgeon General H. S. Cumming of the U. S. Public Health Service clearly shows the extensive amount of work done by that Service in co-öperation with official and unofficial agencies during the past fiscal year. Co-öperation on the part of the Federal Government with such agencies, in some cases specifically required by law, promotes efficiency in that duplication of public health work is avoided, expenses are reduced, and related activities are co-ördinated. Among the most important co-öperative activities of the Service may be mentioned:

With the Department of State in the medical examination of intending immigrants abroad for visa purposes; in the issuance of bills of health by American consuls and related quarantine matters; in the medical treatment of destitute seamen returned from abroad.

With other branches of the Treasury Department in furnishing hospital care and medical and sanitary service to the U. S. Coast Guard, including retired personnel, and in the development of preventive measures against venereal diseases among seamen; in aiding the Bureau of Customs in preventing violations of the maritime quarantine laws and in issuing port sanitary statements to outbound vessels; also in standardizing and administering procedures required of aircraft arriving in the United States from foreign countries; in issuing permits to ships for medicinal liquor and narcotics; and in service on committees for the examination and disposition of narcotic drugs.

With the Department of Justice in matters related to the protection of the interests of the United States in which the administration of the quarantine laws and regulations or the proper care and preservation of public property is concerned; in sanitary surveys of water and sewerage systems at penal institutions; in treatment of Federal prisoners detained in jails at certain ports.

With the Post Office Department in first aid and special physical examinations; by medical testimony in the suppression of frauds; by inoculation of employees handling mails against typhoid fever and vaccination for smallpox; in a ventilation study of the sub-station post office at the Graybar Building, New York City.

With the Interior Department by co-öperating with the Office of Indian Affairs in investigations of water and sewerage systems at the Indian jurisdictions and in connection with the preparation of a minimum dietary standard for the children in the Indian schools in the United States; with the National Park Service in the supervision of sanitation in national parks and monuments, and in the maintenance of the Hot Springs venereal disease clinic; with the Bureau of Pensions in the physical examination of applicants for civil service retirement and for military pensions.

With the Department of Agriculture by assisting in the enforcement of land and animal quarantine; by co-öperation with the Forest Service in the sanitation of national forests and watersheds; in the enforcement of the food and drugs act with reference to the regulation of the maximum permissible content of sulphur dioxide in dried fruit and the standardization of ergot preparations; with the Food, Drug and Insecticide Administration in the enforcement of the pure food law in relation to the adulteration of shellfish and in the prevention of the spread of typhoid fever through milk supplies in Montreal, Canada, and vicinity.

With the Department of Commerce by aiding in standardizing and administering procedures required of aircraft arriving in the United States from foreign countries; with the American Marine Standards Committee of the Department of Commerce in compiling specifications for the ratproofing of ships; by physical examinations, and instruction and examination in the principles of first aid of applicants for license as ships' officers at the request of the Steamboat Inspection Service; in the treatment of lighthousekeepers, and seamen from vessels of the Lighthouse establishment. Coast and Geodetic Survey, and Bureau of Fisheries; in furnishing medical supplies to Lighthouse vessels; in the physical examination of commercial air pilots; by collaboration with the American Marine Standards Committee of the Department of Commerce in the preparation of specifications for ships' medicine chests; with the Bureau of Mines in clinical studies at Picher, Oklahoma.

With the Department of Labor in standardizing and administering procedures required of aircraft arriving in the United States from foreign countries; in the medical examination of arriving immigrants and of intending immigrants abroad, and in the treatment of detained aliens.

With the United States Employees' Compensation Commission in the hospital and out-patient treatment of disabled Federal employees; in physical examinations and special investigations, by the appointment of a permanent board of medical officers for disputed and difficult claims; by medical assistance in carrying out the longshoremen's and harbor workers' compensation act and the District of Columbia workmen's compensation act, by giving advice in regard to medical problems connected with compensation and hospital and out-patient treatment of injured Federal employees.

Co-öperation and assistance were extended to many other branches of the Government in connection with physical examinations, smallpox vaccination, typhoid inoculation, quarantine matters, sanitary inspections and other public health matters.

The Public Health Service co-öperated with all of the States of the Union in the collection of reports of the prevalence of diseases and epidemiological data relating to the communicable diseases. The Public Health Service was also able to assist and co-öperate with a number of States in various public health matters relating to venereal disease control, demonstrations of rural sanitation; flood sanitation supervision and certification of water supplies used by interstate carriers; investigations relating to the shellfish growing areas and the development of local sanitary control machinery; campaign for the prevention and control of trachoma; stream pollution; malaria control and other special public health problems.

Co-öperation was also extended to a number of cities in connection with matters pertaining to the public health.

Co-öperation was had also with a number of societies engaged in public health activities, among which are the American Railway Association, the American Red Cross, the Rockefeller Foundation, the American Public Health Association, the American Standards Association, the National Research Council, the Illuminating Engineering Society, the American College of Surgeons and the New York Tuberculosis and Health Association.

INVESTIGATIONS OF PUBLIC HEALTH PROBLEMS

A report of considerable interest recently submitted to Congress by Surgeon General H. S. Cumming of the U. S. Public Health Service sets forth the research work conducted by that Service during the past fiscal year. The studies of public health problems by the Public Health Service are conducted through the Hygienic Laboratory at Washington and various field stations of a more temporary nature in different parts of the country. A number of subjects under investigation last year proved to be extremely profitable and important fields for research, and investigations have been carried on along lines suggested by previous results.

While the disease known as Rocky Mountain spotted fever is no longer the deadly menace that it used to be, thanks to the protective vaccine devised by workers of the Public Health Service, there is evidence that the area of its distribution is considerably wider than was formerly supposed. The opening up of the country may also be expected to increase, at least temporarily, the exposure of persons to this disease. By analogy with other diseases, however, the ultimate reduction and virtual disappearance of this condition may be expected as a result of the intensive occupation of the land by an increased population. In the meantime, there is abundant opportunity for continued study in this field, since no means have as yet been discovered for eradicating the disease among the small animals which constitute the natural reservoirs of the infection, and since laboratory studies of the reputed cause of the disease have thus far failed to show conclusive results. The manufacture and distribution of the preventive vaccine developed by the Public Health Service have been continued and increased. Vaccine sufficient to vaccinate 5000 persons has been dispensed but the results following its use, while excellent, have not been completely assembled.

The cancer studies of the Public Health Service have been continued both at a field station and at the Hygienic Laboratory. While no startling discoveries have resulted, some solid contributions to our knowledge of this disease have been made.

Stream pollution investigations, with headquarters at the laboratory in Cincinnati, have continued to yield very valuable results. This station is looked upon as a chief source in this country for information on underlying scientific principles relating to the effect of various kinds of pollution of streams and on the processes of natural and artificial purification which render the water susceptible of subsequent use for drinking purposes. A number of articles on the technical aspects of this subject have been published during the year.

For the first time in a number of years a definite increase of malaria has been observed in certain areas. This phenomenon has increased interest in the malaria problem, and studies are under way to determine its cause and to devise means for combating it. The use of Paris green for the control of malaria-carrying mosquitoes has been shown to have much wider application than was formerly supposed. Much work has been done on the application of this substance to breeding areas by means of inexpensive power hand-blowers to be used either from boats or from the shore in connection with portable equipment which would come within the means of almost any community. Gratifying progress has been made in the study of larvicides and new remedies for malaria. A trial of these various methods of malaria control will be made during the year on a county-wide scale in two widely separated counties.

The studies of the salt marsh mosquito problem have been completed. The report under preparation will be comprehensive and will include descriptions of the various kinds of breeding places of these mosquitoes; an enumeration of their species, habits and distribution; an estimate of the extent of the problem; and various means of control which have been found effective in various places and under different circumstances.

The industrial hygiene studies made during the year have been most successful. These have included studies of tetraethyl lead gasoline, of occupational health hazards, of industrial poisons, and of industrial morbidity and mortality, as well as of daylight illumination by means of a special cabinet. The last named studies were particularly unique and interesting.

There occurred during the past year a number of serious epidemics of meningococcus meningitis (cerebrospinal meningitis). Observations of the specific serum used in the treatment of this disease showed that the results were unequal or irregular, and a vigorous attempt is being made to improve the therapeutic efficiency of this serum. This is an extensive undertaking since strains of meningococci must be selected from various epidemics and studied as to their pathogenic and immunizing properties.

The report mentioned deals with numerous other studies of public health problems that are being conducted by the Public Health Service.

THE MASSACHUSETTS TUBERCULOSIS LEAGUE

BUDGET APPROPRIATIONS AND EXPENDITURES FOR 1929 AND PROPOSED BUDGET FOR 1930

	Expended in 1929	Appropriated for 1929	Proposed for 1930
Education			
Health Education Material	$1,709.86	$2,000	$2,000
Health Journal	937.49	1,000	1,000
Annual Meeting	167.00	200	200
	$2,814.35	$3,200	$3,200
Communication			
Traveling Expenses	$1,286.82	$1,500	$1,500
Postage and Express	455.35	600	600
National Conventions	261.29	300	400

Executive Committee Expenses	$32.93	$100	$100
Depreciation on Car		200	200
	$2,036.39	$2,700	$2,800
Maintenance			
Rent	$1,800.00	$1,800	$1,800
Light	33.53	45	45
Telephone and Telegraph	343.19	400	400
Office Supplies	396.00	400	400
	$2,572.72	$2,645	$2,645
Membership Appeal	$25.50	$50	$50
Miscellaneous			
Contingent Fund	$69.93	$500	$500
National Association Membership	25.00	25	25
Sundries	170.24	200	200
	$265.17	$725	$725

REVENUE		
Anticipated Gross Seal Sale for Massachusetts for 1929		$260,000.00
Anticipated Revenue from 1929 Seal Sale for League at 10%		$26,000.00
Other Sources of Revenue		
Membership Receipts	$1,200.00	
Interest on Sinking Fund of League	700.00	
		1,900.00
Total Anticipated Receipts		$27,900.00

CORRESPONDENCE

PSITTACOSIS, OR THE TRIBULATIONS OF A HEALTH OFFICIAL*

Editor NEW ENGLAND JOURNAL OF MEDICINE:

The word psittacosis with superfluous consonants is serving to frighten many good people. It has jeopardized the lives of various harmless birds and has added unduly to the activities of the Board of Health in the midst of its busy season.

The office telephones have been ringing with panicky calls for us to come and remove to places of safety parrots, parrakeets, macaws and even canary birds which have been suspected of being sick or accused of acting queerly. In fact, we have been somewhat panicky ourselves. We have been unable to think of ways to avoid making personal investigations when somebody has telephoned that he thought that he or a neighbor might have a sick bird dangerous to the public health. We did not know what excuse to make when reminded that there were parrots in barber shops and it was pointed out that the Board's Regulations governing the sanitation and conduct of barber shops prescribed no rules or precautions whatever for the protection of barbers or their patrons against psittacosis.

Other places were advertising their cases of psittacosis and our silence about psittacosis was threatening to undermine public confidence in our ability to secure free advertising. There was danger, too, that someone might begin to suspect that an unpleasant situation had developed for which the Board of Health did not stand ready with effective relief.

There was another cause for anxiety. We had no parrot inspectors. When psittacosis began to be reported in Germany, we knew that we might expect to hear of cases in our town and it therefore became legally necessary to apply for the services of a "certified" parrot inspector in order to avoid violation of Rule 41 of the Civil Service Commission which forbids the use of an employee for duties not specifically authorized in his appointment.

Our position of official responsibility for dangerous parrots would be held of course under Civil Service Rules to disqualify us from taking part in any procedure for determining the qualifications of an applicant for appointment as parrot inspector.

We knew that if those selected by the Commission to determine an applicant's qualifications were to decide that he had qualified as an expert in parrot diseases because of alleged service in Cuba in the Spanish War, his appointment would in consequence become unavoidable because of his "veteran's preference." We realized that if he gave his age as thirty years and we protested that a man thirty years old could not have served in the Spanish War, our action would be construed as libelous and that under an accepted construction of Section 10, Chapter 550 of the Civil Service Act of 1912, we would be called on to prove that he was *not* in the Spanish War.

The considerations just mentioned led us to temporize and neglect to add parrot inspectors to the payroll in anticipation of a need for their services. In consequence, when an acute emergency developed, we who were not legally qualified parrot inspectors had to go out and look at parrots notwithstanding the criminal liability thereby incurred.

We had to get busy. Our activities were stimulated by an official report that three members of a family in a city about 50 miles distant had contracted psittacosis from a bird purchased here.

A vociferous apparently healthy Colombian parrot secured some weeks before in New York by a local dealer was inspected at the dealer's place here on several occasions before the purchaser finally decided to pay the dealer's price. Upon purchase, the bird was shipped by express to the purchaser's family on a certain date. Four days later, the bird died. Two days afterward, one member of the family and seven days later, another member of the family had become definitely sick with what was reported to be psittacosis.

We do not question the diagnosis. The dead parrot was returned to the dealer here who acceded to the demand of the purchaser for the return of the money and consigned the parrot's remains to an ash can, the contents of which had disappeared before either the dealer or we had heard of sickness in the purchaser's family. The dealer had about fifteen other parrots none of which have shown signs of

*From the confidential report of the Psittacosis Bureau of the Board of Health on the Psittacosis situation.

sickness, before or since. The deceased parrot was also unfortunate in another respect. The Express Company undertook to deliver the parrot at its destination the same day that the bird was purchased. The poor immigrant from the Tropics, however, spent two days en route and was subjected to exposure to the same Massachusetts winter weather which killed so many of the early Pilgrim fathers and mothers and which might be expected to prove fatal to a tropical bird even if not at the same time suffering from psittacosis. The parrot arrived at the home of its consignee in a state of collapse from which it did not recover, dying within two days.

Spurred on by such reasons for activity as those above mentioned, the Psittacosis Bureau has acquired a great deal of information regarding parrots. Every place where birds are known to be or suspected of being offered for sale has been inspected and the proprietor questioned and then cross-examined. Ornithologists and pathologists have been quizzed. Bird attendants in our Parks have been consulted. We have learned to recognize the different varieties of parrots. We can now tell from whatever locality anywhere in the world any particular bird comes by examining his plumage. We know how parrots are caught, brought here and marketed. We are being buoyed up by the hope that some day all this information may prove valuable.

Thus far, however, we have failed to discover a case of sickness here among birds or human beings, which could judiciously be advertised even as a suspected case of psittacosis.

We have accumulated much information regarding the nature and symptoms of psittacosis. We have found it necessary, however, to unlearn more or less of what we have been taught regarding these matters and we have suspicions that our present knowledge regarding them may be subject to further revision. For this reason, we hesitate to undertake to instruct the public in the diagnosis of psittacosis, believing with a famous American Philosopher that "It is better not to know so much than to know too many things which are not so."

We feel, however, that the public may be safely told that a parrot which contracts psittacosis quickly shows plain, unmistakable evidence of being a very sick bird. Among the symptoms, it probably has a green diarrhoea, but we suspect that a parrot may have a green diarrhoea from other causes.

A human being which becomes infected with psittacosis likewise develops very rapidly symptoms which make the serious character of the illness so obvious that a call for a physician is not likely to be long delayed.

We would suggest that the public might be told, as well, that psittacosis is an acute contagious disease like smallpox or measles and also like these diseases will develop, if it is going to develop at all, within a comparatively short time, probably within two weeks of the date of infection.

Psittacosis does not come on insidiously. A person is not justified in entertaining murderous feelings toward the family parrot, which has not associated with other birds for thirty years,—or even for thirty days—just because the parrot seems to be less noisy than usual or appears to be losing its appetite.

Psittacosis is not an imaginary disease as some of our citizens believe rabies to be. Psittacosis is a serious disease for any human being who may happen to get infected, but from the point of view of danger to the public even a recently imported parrot is not in the same class as the family dog, with rabies increasing in prevalence as it is in this vicinity. The mortality from rabies is 100 per cent. Moreover, the control of rabies is a difficult problem, while the prevention of psittacosis is easy. Among other ways of practically eliminating human danger from psittacosis is that of subjecting consignments of birds to a brief period of quarantine, either at our ports of arrival or under consular supervision at tropical ports of departure.

P. Bahr, M.D.,
Chief of Psittacosis Bureau.

NO AMENDMENT TO HOUSE BILL 384 HAS BEEN FILED

Birth Control League
of Massachusetts
87 Robinwood Avenue
Jamaica Plain, Mass.

February 17, 1930.

Dear Sir:

The hearing upon Representative Day's bill, House Bill No. 384, which we asked you to attend on February 24 has been cancelled. Representative Day, after discussion with physicians and others who had considered the provisions of his bill, concurred in their judgment that the passage of the bill in the form in which it was presented would not be advantageous and therefore determined to ask leave to withdraw it without a hearing.

A bill has been drafted which physicians whom we have consulted feel would satisfactorily clarify the statutes and meet the situation. It is too late to file the bill for this legislative session, but our present opinion is that this might properly be filed next year before the beginning of the legislative session.

Careful consideration was given to the question whether an attempt should be made to have this proposed bill substituted for Representative Day's bill for action during the present session, but it was the unanimous opinion of those who gave thought to the question, including men of legislative experience, that under all the circumstances it would be wiser to introduce the proposed bill as an independent bill in the next session.

Very truly yours,

Mary L. East,
(Mrs. E. M. East),
Executive Secretary.

Note—This refers to the so-called Birth Control Bill. The report published in this Journal that an amended bill had been filed is not correct.

FURTHER REFERENCE TO THE EXAMINATION OF OPERATORS OF MOTOR VEHICLES

Worcester, Mass.,
February 19, 1930.

Editor NEW ENGLAND JOURNAL OF MEDICINE.

Dear Doctor:

I recently wrote you regarding the situation of applicants for Motor Vehicles licenses. I am enclosing herewith two letters one from Dr. Vaughan which in itself is explanatory and also a reply from Dr. Lowell to a letter I had sent him. It does seem to me that the medical profession made up of men of high education are helpless in the position in which they now find themselves. Can you suggest any way that we might bring this matter more forcibly to the doctors whereby they can correct the conditions existing.

As you know our position in this matter I feel sure that you will appreciate the fact that without the co-öperation of the oculists, we cannot help such conditions as arise from time to time. Before we know it the optometrists will have the business so tied up, that the oculists will be so in the minority that it will be a small matter for certain groups to begin practising medicine.

Very truly yours,
THE HARVEY & LEWIS CO.
J. A. MCQUEENY, *Treas.*

The Commonwealth of Massachusetts
Department of
Civil Service and Registration
Board of Registration of Nurses
State House, Boston,
February 17, 1930.

The Harvey & Lewis Co.
513 Main Street
Worcester, Massachusetts.

Gentlemen:

Your letter to Dr. Bigelow of the Health Department, in regard to orders issued by the Registrar of Motor Vehicles concerning eye defects, was referred to this office for reply.

Following your letter, an interview has been held with Capt. Parker, Registrar of Motor Vehicles, and he informs us that he is perfectly willing to refer applicants with defective vision to oculists, but his principal desire is that people with defective eyesight should not be operating motor vehicles until these defects have been corrected. I am enclosing a bulletin issued by the Board of Registration in Optometry which makes special directions in regard to an optometrist soliciting business.

If you can give us definite information at any time that these regulations are being violated, I would appreciate it very much. In the writer's opinion, there is no legal point that is being violated in the registrar's action.

Very truly yours,
FRANK M. VAUGHAN, *Secretary.*

New England Ophthalmological Society
Boston, Mass.,
February 11, 1930.

Mr. John A. McQueeny
513 Main St.
Worcester, Mass.

Dear Sir:

Your favor of February 8, 1930 has been received.

Several of us, present and past officers of the Society have read your note. Our Society has no Legislative Committee and we can see no action that would be of any use at the present time.

Mediocre work in whatever direction will always be found out. You know the optometrists do pretty good work as to refraction. Their lack of medical training will always be the stumbling block. The longer we live the surer we are that "one does not get something for nothing", but here the optometrist gets excellent advertising.

Very truly yours,
W. HOLBROOK LOWELL.

A QUESTION WITH RESPECT TO THE TREATMENT OF CANCER

Editor
NEW ENGLAND JOURNAL OF MEDICINE:

Numerous patients of mine have inquired as to the truthfulness of the discovery of cancer serum. Are Drs. Coffey and Humber worthy of consideration?

What is the attitude of our own investigators to this new discovery? Are we doing anything with this discovery at our Massachusetts Hospital for Cancer?

Your opinion in this matter will be appreciated.

What shall we tell our anxious patients concerning this discovery?

Thanking you, I beg to remain

Yours truly,
M. L. SLUTSKIN.

EDITORIAL NOTE:

The State Department of Public Health has taken pains to ascertain the possibilities of supply of the serum made from adrenal cortex. A communication from California indicates that the supply is so limited that there is none for distribution. Further, that it is the opinion of those who have entered on this study that the progress is still in the experimental stage and that there is nothing definite to be stated at the present other than that work is being carried on.

RECENT DEATHS

CARDI—DR. ALPHONSO BLAISE CARDI died at his home in Worcester of a psoas abscess and septicaemia on February 20, 1930, at the age of 30.

Born in Itri, province of Caserta, Italy, February 2, 1900, he was brought by his parents to Providence, R. I. when three years old. There he was educated in

the public schools and entered Tufts College Medical School in 1921 where his M.D. was received in 1925. Settling in Worcester he completed a course as interne at the Worcester City Hospital in 1927, having previously joined the Massachusetts Medical Society. Since 1928 Dr. Cardi had been orthopedic physician to out-patients at the City Hospital.

In January, 1928 he married Miss Anne A. Carrigan, a graduate nurse of Worcester. She survives him as do two sons.

HALL—Dr. William Dudley Hall, a retired Fellow of the Massachusetts Medical Society and a member of the American Ophthalmological Society, died at West Dennis, February 12, 1930, aged 73. He was a graduate of Harvard College in the class of 1880 and of Harvard Medical School, in 1883. He practised ophthalmology in Boston until his retirement in 1922. Dr. Hall was not married.

DIEHL—Dr. Harold Edgar Diehl, assistant professor of clinical obstetrics in Boston University, died at his home in Quincy, February 14, 1930, aged 43. He was a native of Easton, Pa., a graduate of Lafayette College and of Boston University School of Medicine in 1911. Two years later he began practice in Quincy, and ultimately maintained an office in Boston.

He was a member of the New England Obstetrical and Gynecological Society, the American College of Surgeons and the Massachusetts Medical Society.

A widow and a daughter survive him.

OBITUARY

HAROLD E. DIEHL, M.D.

The many friends of Dr. Harold E. Diehl will be saddened to hear of his death on February 14, 1930, at Quincy, Massachusetts, where he had practiced his profession of medicine since 1913.

Harold Edgar Diehl was born in Easton, Pennsylvania, on September 10, 1886. He attended the public schools of that city and was graduated from the Easton High School as Valedictorian in 1903. The following fall he entered Lafayette College from which he graduated with high honors in 1907 receiving the Phi Beta Kappa Key.

His parents wanted him to enter the Navy, but he preferred the profession of Medicine, and with this in view entered Boston University School of Medicine where he graduated Cum Laude in June 1911. He served his internship at the Newton (Mass.) Hospital. While at the Medical School Dr. Diehl met Miss Helene M. Taylor of Sullivan, Maine, then a pupil in the nursing school. They were married in June 1914. The young couple settled in Quincy, Massachusetts, where the doctor began the practice of his profession. He was soon made a member of the staff of the Quincy Hospital and built up a large general practice endearing himself alike to rich and poor, and took an active part in the health program of the city. He was Commissioner of the Board of Health for two years.

He became a member of the staff of the Massachusetts Homeopathic Hospital in 1913 in the department of obstetrics where for the past eight years he has been one of the chiefs of staff and also served in the gynaecological department. For the past few years he has specialized in these subjects with an office in the City of Boston. Four years ago he received his certificate as Fellow of the American College of Surgeons both in Obstetrics and Gynaecology.

In his early days in medicine Dr. Diehl was assistant in the pathological laboratory of Boston University School of Medicine and conducted classes in physical diagnosis. For some years he has held the Chair of Assistant Professor of Clinical Obstetrics and Instructor in Gynaecology.

At the call of his country in 1918 Dr. Diehl entered the Army Medical Corps as First Lieutenant and after the usual six weeks at Camp Greenleaf was stationed at Camp Hancock Base Hospital in Georgia, but was not sent overseas. He was later promoted to the rank of Captain.

He was a member of the Massachusetts Medical Society, the Massachusetts Homeopathic Medical Society and the newly formed New England Obstetrical and Gynecological Society. He was also a charter member of the Rotary Club of Quincy, of the Aethean, and the University Club of Boston.

Dr. Diehl leaves a wife and a daughter, aged fourteen, also his father and mother, Mr. and Mrs. Sylvanus G. Diehl, all of Quincy, Massachusetts.

A memorial service was held at the Evans Memorial Hospital at noon on Monday, February 17, by the Staff of the Massachusetts Memorial Hospitals and the Faculty of Boston University School of Medicine.

NEWS ITEM

BOSTON MEDICAL LIBRARY RECIPIENT OF MEMORIAL TO DR. MORTON PRINCE—Through a gift of $15,000 by his widow, Mrs. Fanny Payson Prince, a memorial to the late Dr. Morton Prince has been provided for the Boston Medical Library. The memorial will take the form of a new reading room for the use of members of the library. In the memorial room will be kept Dr. Prince's original manuscripts and the first editions of his numerous books as well as selected rare books from his private collection bequeathed to the library.

A bas-relief of Dr. Prince with inscription will recall his vigorous and genial personality.

NOTICES

A CORRECTION OF A STATEMENT IN THE PAPER BY HINTON AND STUART

W. A. Hinton and G. O. Stuart, whose paper, "A Cholesterol Agglutination Reaction in Tuberculosis" was published in the February 13, 1930 issue of this journal, wish to make the following correction. On Page 329, Line 20, this statement was made—"In fact, some fifteen years ago Ashford found that 11.5 per cent. of *accuracy* in diagnosis was made in the Bos-

ton Consumptives' Hospital, as based on autopsy findings." The sentence should read as follows: In fact, some fifteen years ago Ash[17] found that 11.5 per cent. of *inaccuracy* in diagnosis was made in the Boston Consumptives' Hospital, as based on autopsy findings.

INTERNATIONAL HYGIENE EXHIBITION

Complete programs of the International Hygiene Exhibition in Dresden for 1930 are on file at this office. If anyone is interested, we should be glad to give them the material.

HAROFEH HOIBRI

The second issue of *The Hebrew Physician* (*Harofeh Hoibri*), the only Hebrew Medical Journal published outside of Palestine, has just made its appearance.

This Journal is under the editorship of Dr. Moses Einhorn and Dr. L. M. Herbert. It consists of 180 pages, and contains numerous articles on general medical subjects, including a copy of the manuscript on "Hemorrhoids", by Shlomo Eben Ayub of Badrash, France (1265 A.D.). A special section is also devoted to new Hebrew medical terminology.

All physicians who are interested in this journal are requested to communicate with *The Hebrew Physician*, 983 Park Avenue, New York City.

REPORTS AND NOTICES OF MEETINGS

ESSEX SOUTH DISTRICT MEDICAL SOCIETY

The Essex South District Medical Society held its regular meeting at Danvers State Hospital at 5 o'clock P. M. on February 12, 1930. A clinic was held from five to six-thirty P. M. and dinner was served at seven.

The society was asked to consider the feasibility of the establishment of a radio health hour and it was voted that a committee of three be appointed by the president to consider this question.

A communication was received requesting the opportunity to address the society upon the subject of the proposed state insurance proposition. A vote disclosed unanimous opposition to the basic idea which rendered it unnecessary to give time to the proposed address.

The guests of the evening were Dr. Winfred Overholser of Boston, who spoke upon "Criminology and Psychiatry," and Mr. William L. Clark, District Attorney for Essex County, who discussed the same subject from the standpoint of the public prosecutor.

Dr. George M. Kline, Commissioner of Mental Diseases for the Commonwealth, led the discussion.

Attendance 70. Adjourned 11 P. M.

WM. T. HOPKINS, *Reporter.*

BOSTON HEALTH LEAGUE

Mr. Howard W. Green, Secretary of the Cleveland Health Council and Director of the 1930 Federal Census for the Sixth Ohio District gave the address at the Annual Meeting of the Boston Health League at the Hotel Kenmore on Thursday evening, February 13, 1930.

Mr. Green's subject was *Facts, Figures and Fiction in Social and Health Work Programs.* He described vividly, by means of slides and maps, Cleveland's use of census tracts, to discover which districts in the city had need of the most intensive treatment by social and health agencies. Census tracts were explained as small permanently bounded geographic areas, according to which the Federal Census Bureau will tabulate the population data of large cities, provided it is assured that good use of this information will be made by the local official and private agencies. Mr. Green proved the many advantages accruing from the use of research on this basis not only to city health departments, but to public utility corporations, family case work agencies, the Board of Education, house to house sales business, and many other organizations. Brisk discussion and questions followed the talk.

The evening meeting was preceded by a dinner at which the following officers were elected to serve the League for the coming year:

Honorary President: Francis X. Mahoney, M.D.
President: John W. Bartol, M.D.
Vice President: Rev. George P. O'Conor.
Treasurer: Richard G. Wadsworth, M.D.
Secretary: Charles F. Wilinsky, M.D.

AN ABSTRACT OF A LECTURE ON INDIA BY DR. EDWARD W. WILDER

Under the auspices of the Phillips Brooks House Association on Tuesday, Feb. 4, 1930, in Amphitheatre E of the Harvard Medical School Dr. Edward W. Wilder, of the Albert Victor Hospital at Madura, India, spoke on "Medicine in India."

India is about one-half the size of the United States and its threefold population lives mainly in almost innumerable small scattered villages. This has a great bearing on the attempt to educate the people and to give them medicines.

The prevalent diseases are practically the same as those of the United States except scarlet fever. The diseases seen are usually of the florid type. The fevers head the mortality list, the main one being malaria, but tuberculosis, typhoid, and relapsing fever are seen often. Cholera appears every year somewhere. The annual death rate from smallpox is high. Leprosy is prevalent. The mortality from childbirth is high.

There are several classes of doctors. The lowest is the barber surgeon who causes many infections. The village physician is the next highest in the scale. He uses nux vomica, belladonna, mercury, and arsenic, but often gives too much. He still uses religious symbols. The recognized systems of the Mohammedans and Hindus have some good men, although their work is based largely on empiricism; there is a growing interest in scientific medicine. The best medicine is practiced in the government service. The lower ranks are recruited from the Indian Medical Schools, doing good work when supervised. The

young Indians trained in government schools tend to congregate in the cities. This practice the government has attempted to break up by subsidizing the men in the villages, but has not been very successful.

Very little research work is done because of the lack of men, money, and time. Treatment is the important feature. Sanitation and preventive medicine constitute a most effective field. Out-patient work is a problem. There are about two dispensaries per 100,000 population and these are in the cities, leaving the rural districts without adequate medical care. The character of work done in the hospital varies with the type of men in charge.

The meeting was extremely interesting because of the engaging qualities of the speaker.

ANNUAL MEETING OF THE HOUSE OF GOOD SAMARITAN

At the recent annual meeting of the House of the Good Samaritan, the following-named officers were elected: President, Allan Cunningham; treasurer, Thorvald S. Ross; secretary, Mrs. Erland Fish. Serving on the board of managers are: Mrs. Samuel C. Bennett, Mrs. Kenneth D. Blackfan, Mrs. William N. Bullard, Mrs. Henry B. Chapin, Mrs. Henry C. Clark, Miss Catherine C. Codman, Mrs. Robert Codman, Miss Louise Fessenden, Mrs. Erland F. Fish, Mrs. Alexander Grant, Mrs. Richard S. Humphrey, Mrs. Edwin A. Locke, Mrs. John Lowell, Mrs. Pierce P. McGann, Mrs. James H. Means, Mrs. Henry W. Minot, Mrs. W. Stanley Parker, Miss Margaret Revere, Mrs. Thorvald S. Ross, Mrs. Richard Saltonstall, Mrs. J. Lewis Stackpole, Mrs. George A. Strong, Miss Frances C. Sturgis and Mrs. William F. Wharton. Miss Louise M. Coleman is superintendent of the hospital and Miss Lilian H. Morris assistant superintendent.

THE MASSACHUSETTS PSYCHIATRIC SOCIETY

The Massachusetts Psychiatric Society held a meeting at the Boston Psychopathic Hospital on Friday evening, February 7, 1930. Various papers from the Boston State Hospital Research Department were presented.

Dr. Abraham Myerson spoke on "The basic considerations of the physiological approach to psychiatry," explaining that the human being is a physiological organism created and recreated by environment. Therefore, one should approach the psychoneuroses from a physiological viewpoint. Psychoneuroses may be classified according to the organic change in the individual. First, those in which the great organic tendencies such as eating disappear; second, those cases in which the urge to sleep is diminished and lastly, those in which the urge of sex disappears. All of these are somewhat impaired in psychoneuroses. Paraesthesias are common in psychoses and psychoneuroses. They may appear as an increase of visceral consciousness, disordered sensations, or the disappearance of visceral sensations in the order named. The treatment of psychoneuroses, then, is to put the patient on a physiological sound basis and the psychological manifestations will take care of themselves.

Dr. Julius Loman spoke on "A comparison of treated and untreated cases of general paresis." He studied 375 cases in the eight years 1921-29 at the Boston State Hospital. He concluded that there is no definite relation between the amount of treatment and the per cent. of remissions. The time of treatment in relation to the beginning of the disease seems to be the most important factor.

The third paper on "Haematological Researches in the psychoses with special reference to general paresis" was presented by Dr. William Dameshek. He studied the appearance of the white blood cells as to type, maturity, and the presence of pseudopodia, and the appearance of toxic changes such as irregular granules and cytoplasmic vacuolization. Smears from dementia praecox patients in a few cases showed a low polynuclear count with a lymphocytosis and an eosinophilia. Smears from general paresis cases showed no characteristic change though in some cases an increase in mononuclears was noticed. He concluded that a study of the white cells has no diagnostic or prognostic significance.

Miss Caroline Stephenson spoke on "Sedimentation Rate of Red Blood Corpuscles in the Psychoses." Miss Stephenson outlined the methods used, the Linsun-Meyer and Westogren procedures. She found that the sedimentation rate is increased in organic neurological conditions and dementia praecox, and not affected in the hysterias.

The final paper on "Bio-chemical studies of brain activity by the jugular puncture method" was presented by Dr. Ray B. Halloran. The theory behind the work was that a tapping of the inflow and outflow of the brain should show evidence of changes in the brain. After a brief review of the anatomy he outlined his method. The blood was tested for sugar, cholesterol, lecithin, fatty acids, non-protein nitrogen, urea, copper, phosphorus, chlorides, carbon dioxide and oxygen. A similar procedure was carried out in the arm. He concluded that the brain is an active metabolic organ, that the brain consumption of sugar is as great or greater than in the arm and that the carbon dioxide is increased and the oxygen content lowered.

THE MASSACHUSETTS MEDICO-LEGAL SOCIETY

The Massachusetts Medico-Legal Society held a meeting Feb. 5, 1930, at the Harvard Medical School. Dr. Dow of Cambridge introduced Dr. A. Warren Stearns, Dean of Tufts College Medical School and Commissioner of the State Department of Correction, who spoke on "Suicide."

"Suicide," said Dr. Stearns, "is a rapidly mounting cause of death. The history and incidence of suicide is interesting. There is no evidence that suicide exists among animals. It never existed in primitive peoples except as the part of some ceremonial or custom. This brings up the question of the effect of culture on the suicide rate. Suicide among children is quite rare. Statistics which claim this to be true are unreliable because they include as children all

persons under 21 years of age. It is rare in illiterates and increases with the higher scale of living and better education. There are five cases listed in the Bible. In Rome there was a law permitting suicide."

The first statistics about suicide were published by the Swiss in 1816, but were not very reliable. In 1841 the state of Massachusetts published the rate as four in 100,000. In 1885 a medical examiner's report appeared while in 1893 the rate was shown to be fourteen per 100,000 which is about the present rate. The rate by age increases from 14. The periods of adolescence, climacteric, and senility give a transient high rate. The male to female ratio is about five to one, though the female rate is increasing. The rate is higher in the spring and over holidays.

Dr. Stearns listed the causes of suicide as mental derangement, delinquency, stress and strain, and the presence of inoperable and incurable disease such as cancer or tuberculosis. The kinds of suicide are deliberate, impulsive, and instinctive. The suicide threshold varies with each individual, being high for northern peoples and low for the southern.

The paper was followed by much interesting discussion, and then by a lunch.

LECTURES BY PROFESSOR HECHT AT THE HARVARD MEDICAL SCHOOL

Professor Selig Hecht of Columbia University, whose work in relation to vision has been recognized, will lecture on "The Nature of the Visual Process" at the Harvard Medical School under the auspices of the Howe Laboratory of Ophthalmology. Professor Hecht was formerly connected with the Harvard Medical School.

Tuesday, March 11—"Visual Acuity"—Amphitheatre C, 5 P. M.

Thursday, March 13—"Color Vision"—Amphitheatre C, 5 P. M.

GREATER BOSTON MEDICAL SOCIETY

A joint meeting of the Greater Boston Medical Society and the Beth Israel Hospital will be held on Tuesday, March 4, 1930, at 8:15, at the Beth Israel Hospital.

PROGRAM

"Present Status of the Hinton Test." By Arthur Berk, M.D.

"A Study of Social Factors in Mental Diseases." By J. Kasanin, M.D.

"The Use of Stamonium in Parkinsonism." By A. H. Braverman, M.D.

"Blood Findings in General Paresis." By William Dameshek, M.D.

"Bio-Chemistry of Brain Activity by Internal Jugular Method." By Abraham Myerson, M.D.

"The Effect of Inhalation of Carbon Dioxide in Certain Neuropsychiatric States." By Harry C. Solomon, M.D.

LOUIS SILVER, M.D., *Secretary.*

SOCIETY MEETINGS, CONGRESSES AND CONFERENCES

1929-1930—Massachusetts Dietetic Association. Complete schedule appears on page 852, issue of October 24.

March 4—Greater Boston Medical Society. Complete notice appears elsewhere on this page.

March 11 and 13—Lectures by Professor Hecht at the Harvard Medical School. Detailed notice appears elsewhere on this page.

March-October—International Medical Postgraduate Courses in Berlin. Complete notice appears on page 853, issue of October 24.

April 14-18—The New England Public Health Institute. Complete notice appears on page 55, issue of January 2.

May 2—Annual Meeting of the American Society of Stomatologists. Detailed notice appears on page 92, issue of January 9.

May 5-10—First International Congress on Mental Hygiene. Detailed notice appears on page 93, issue of January 9.

September 4-8—Fifth International Congress on Physiotherapy. Complete notice appears on page 906, issue of October 31.

October 27—The American Public Health Association. Detailed notice appears on page 1271, issue of December 19.

DISTRICT MEDICAL SOCIETIES

Essex North District Medical Society

May 1—Thursday—Censors' meeting at Hotel Bartlett, 95 Main Street, Haverhill, (Telephone 3430) at 2 P. M. sharp. Candidates should present their diplomas to the Secretary one week in advance.

May 7—Wednesday—Annual Meeting, at Anna Jaques Hospital, Highland Avenue, Newburyport, Mass.

J. FORREST BURNHAM, M.D., Secretary.

Essex South District Medical Society

Wednesday, March 5, 1930—Lynn Hospital. Clinic 5 P. M. Dinner 7 P. M. Speaker: Dr. R. S. Titus, Boston. Subject: "Some Aspects of Caesarean Section," illustrated with Moving Pictures. General Discussion from the floor.

Wednesday, April 2, 1930—Hotel Hawthorne, Salem. Dinner at 7 P. M. Speaker: Dr. Timothy Leary, Boston. Subject: "Diagnostic and Therapeutic Pitfalls in Intracranial Pyogenic Infections."

Thursday, May 1, 1930—Censors meet for Examination of Candidates at Salem Hospital at 3:30 P. M.

Tuesday, May 13, 1930—Annual Meeting. The Tavern, Gloucester. Speaker: Dr. C. Macfie Campbell, Director of Boston Psychopathic Hospital. Subject to be announced later. Ladies invited. Dancing.

R. E. STONE, M.D., Secretary.

Franklin District Medical Society

The meetings of the Franklin District Medical Society will be held at the Weldon Hotel, Greenfield, Mass., on the second Tuesdays of March and May, at 11 A. M.

CHARLES MOLINE, M.D., Secretary.

Hampshire District Medical Society

April 9—This meeting will occur at 11 A. M. and will be held at the Dickinson Hospital, Northampton.

The Annual Meeting will be held in May.

LUTHER O. WHITMAN, M.D., Secretary.

Middlesex East District Medical Society

March 12—At Melrose.

May 13—At Unicorn Country Club, Stoneham.

ALLAN R. CUNNINGHAM, M.D., Secretary.

Middlesex South District Medical Society

April 16, 1930—Annual Meeting. Commander Hotel, Cambridge. Program to be announced.

May, 1930—Censors' meeting.

ALEXANDER A. LEVI, M.D., Secretary.

Norfolk District Medical Society

March 24, 1930—Roxbury Masonic Temple. Dr. Burton E. Hamilton. Subject to be announced.

May 6, 1930—Annual Meeting. Program to be announced.

The Censors meet for the examination of candidates, May 1, 1930, in the Roxbury Masonic Temple, 171 Warren Street, Roxbury, at 4:00 P. M.

Applications must be in the hands of the Secretary at least one week previous to date of examination.

Owing to inability to engage the Roxbury Masonic Apartments on the last Tuesday of the month, such meetings as will be held in the Roxbury Temple will be held Monday evenings as per the dates above.

FRANK S. CRUICKSHANK, M.D., Secretary.

Plymouth District Medical Society

March 20, 1930—Moore Hospital, Brockton. Speakers to be announced later.

April 17, 1930—Annual Meeting, Commercial Club, Brockton, 7 P. M. Election of officers. Annual oration, Dr. Frederick F. Weiner, "The Management of Prostatic Diseases," with moving pictures.

G. A. MOORE, M.D., Secretary.

BOOK REVIEWS

The Mobilization of Ankylosed Joints by Arthroplasty. Written by W. RUSSELL MACAUSLAND and ANDREW R. MACAUSLAND. Publishers Lea and Febiger, Phila. 1929. Price $4.00.

This book of 227 pages is an admirable treatise on Arthroplasty, written by two Orthopaedists qualified through wide experience and a long sustained and intense interest in the subject.

It is well worth careful reading by all students and practitioners of Orthopaedic Surgery. That such a book is valuable to the general practitioner whose work must include the care of various joint afflictions, there is no doubt. The subject is treated in a highly technical manner, possibly too much so to be easily digested or really valuable to the general practitioner. But the presence of accessible sections dealing with the functional position of the joints and the mechanism of deformity represent its value to this group.

The authors use the term Arthroplasty in the restricted sense, i.e., the reconstruction of the bony components of the joint with interposition of some substance to prevent re-ankylosis—closely distinguishing from joint excision where motion is the goal regardless of stability.

The greater part of the book deals with the technic and results of Arthroplasty by the free fascial transplant method—the best in the authors' opinion.

The pathology of joint limitation is dealt with didactically, the discussion including the joint changes, etiology, diagnosis and mechanical significance of ankylosis.

Prevention of the deformities in ankylosis which give rise to the need for Arthroplasty is stressed throughout the book and is one of its strongest features from the standpoint of the student of Orthopaedics.

The historical development of the subject is presented in a manner to stimulate research in the field of Arthroplasty.

A separate chapter is devoted to the Arthroplasty of each of the joints which lend themselves to this procedure. Each is freely illustrated.

There is a splendid reference index at the end of each chapter.

Grundzuge Der Rontgendiagnostik Innerer Erkrankungen. By DR. FELIX PELTASON. Published by J. F. Bergmann, 1927, at Munich. *178 Pp. 222 Illustrations.

This volume, published in German, presents a well written, well illustrated, and concise review of the fundamental principles of x-ray diagnosis in internal medicine. After a brief introduction, the first section is devoted to a general consideration of the production of x-rays and x-ray apparatus. Much of the apparatus, however, is of types not in common use in this country.

Section two discusses general consideration in x-ray diagnosis, and the indications therefor. This section, though brief, presents all of the essentials.

Section three, which occupies the bulk of the volume, is divided into sub-sections covering the various areas of the body, namely, the heart, aorta, lungs, esophagus, stomach, gall-bladder, bowel, urinary tract, head, spine and extremities.

The sections on the chest and gastrointestinal tract are particularly valuable, and most of the more important types of pathology which can be visualized by the x-ray are well illustrated. Unfortunately, the sections on the head, spine and extremities are much too short to cover the ground thoroughly, although such matter as is described is well presented.

At the close there follows an index of authors and subjects which is very complete. A large number of references, chiefly German, are referred to in footnotes.

This volume should prove valuable to the internist who desires to familiarize himself with the possibilities of x-ray diagnosis and the typical lesions with which he is likely to come in contact.

Modern Methods of Treatment. By LOGAN CLENDENING, M.D., Professor of Clinical Medicine, Medical Department, University of Kansas. Third edition. 815 pages. C. V. Mosby Company, St. Louis. Price $10.

There have been practically no changes over the second edition. The author has changed from a skeptical attitude on diathermy to admitting its definite value in gynecology. He has briefly mentioned synthaline, myrtillin, euphyllin, sulphocyanide, barium chloride, and erysipelas anti-toxin. There have been very slight revisions in the articles on quinidine, liver diet, iodine in goitre, and non-specific protein therapy in peripheral vascular disease. The book remains, however, a most useful reference book on modern methods of medical treatment. As noted in the review of the previous edition, there are very few books which will be of more use to a young practitioner of medicine.

Practical Local Anesthesia and its Surgical Technic. ROBERT EMMETT FARR. Lea & Febiger, Philadelphia, Publishers. 587 Pages. $9.00.

This second edition of Dr. Farr's work brings up to date the author's wide experience in developing local anesthesia and adapting it to practical clinical problems. He is opposed to the development of a separate specialty of local anesthesia, believing that each surgeon should familiarize himself with the relatively simple steps in procedure necessary to insure successful anesthesia.

Farr has found it advantageous to build up an entirely new operative armamentarium to avail himself most fully of the advantages inherent in local anesthesia. The operating room, lighting, table, instru-

ments,—even the drapes, all have been modified better to subserve the purposes of this anesthesia. On these ancillary measures Farr lays great stress, and a considerable portion of the book is devoted to their description.

Similar changes have been found necessary or helpful in the actual operative technic, and one will find original and often unfamiliar procedures for incising the skin, opening the peritoneal cavity, dividing adhesions, retracting, sponging, suturing, and so forth. Many of these procedures are valuable regardless of the type of anesthesia employed. Thus the book might rightfully claim some standing merely as a collection of useful operative technical procedures.

In regard to the actual use of the anesthetic agent, in keeping with the author's insistence on the surgeon as anesthetist, the major stress is laid on local infiltration, and infiltration block, rather than on the more elaborate and exacting regional blocks and nerve trunk interruptions. Although there is some description of the latter, in general it is less explicit and less detailed than in some of the other works available in this field.

Farr recognizes certain limitations in the applicability of local anesthesia, particularly in extensive inflammatory or neoplastic intra-abdominal or pelvic conditions, although even here he illustrates with case reports what may be accomplished with patience and brilliant technique. He does not take up spinal anesthesia in any detail, although in our community we find it peculiarly applicable to this type of case.

The book is filled with numerous case reports, which serve largely to convince the skeptical and incredulous of the practicability of procedures outlined. There are numerous illustrations, an excessive number of which subserve the same end, without contributing greatly to elucidation of the success of the technic employed. The illustrations descriptive of steps in technic are fairly good. There are some original observations on intraperitoneal pain sensation, but as a whole the work represents the experience of a general surgeon in adapting known facts about local anesthesia for practical use in his clinic. As such, it should form a useful addition to any surgical library.

Hunter Tod's Diseases of the Ear. Oxford Medical Publications. Revised and rewritten by GEORGE C. CATHCART, M.D.

In 1907 Hunter Tod, well known English otologist brought out a student's textbook of diseases of the ear. After going through three more impressions the book remained unchanged for fourteen years, when after Tod's death the book was revised and largely rewritten by the present author. It is still, in its newer form, intended for students and general practitioners, being essentially a handbook covering only the gross essentials. The 320 pages carry a large, easily readable type with a few colored illustrations in crayon and numerous black and white cuts. Starting with a short account of the theory of acoustics, the author covers in brief and elementary fashion, the anatomy of the internal, middle and external ears, the technique of examination of the ear and the diseases of the external auditory canal. Then follows an account of diseases of the tympanic membrane and so-called middle ear catarrh. So large a subject as otosclerosis receives only the attention of 2 pages. Under the heading of inflammations of the middle ear are discussed the various stages of infectious otitis media, including acute and chronic suppuration, together with some account of the more conservative operative measures. Disease of the mastoid process is considered under the headings acute and chronic, including descriptions of the classical operations of simple and radical mastoidectomy.

There is an interesting chapter on the intracranial complications of otitis media, including brain abscess, meningitis and sinus thrombosis and a short account of pathological conditions of the internal ear, labyrinth, and auditory nerve. The author next covers the relations of diseases of the ear to the acute infectious diseases. There is a page on deaf-mutism and a final chapter on the relation of diseases of the nasopharynx to those of the ear.

The whole book leaves the impression of being somewhat sketchy in spots and quite adequate in others. Some of the classifications are rather at variance with the accepted ones in this country.

Mammalian Physiology: A Course of Practical Exercises. E. G. T. LIDDELL and SIR CHARLES SHERRINGTON. Oxford, The Clarendon Press, 1929. Pp. 162. Plates 9. Fig. 50. Price $5.50.

This is a new edition of a manual which probably stands alone in its class. It sets forth with helpful detail a program of laboratory work evolved at Oxford for advanced students. It makes available in other schools the results of long experience, skill and mature judgment on the part of the distinguished authors. The directions are very full and the procedures in several cases made clear by the excellent plates. Typical records are reproduced. There are illuminating comments on the results to be expected and interesting references to the classic studies of the pioneers.

Such a course as the one outlined sets a standard difficult to attain. With large classes the performance of more than twenty experiments on cats, dogs and rabbits would be expensive in the cost of the animals and more so in the high grade assistance which would be required. But as a source of guidance for demonstrations or selected work for students the book is of the highest value.

Practical Otology. By MORRIS LEVINE, M.D., Associate professor of Otology, New York Post-graduate Medical School and Hospital; Associate attending Otologist, New York Post-graduate Medical School and Hospital. Published by Lea and Febiger. Price $5.50.

This book of Dr. Levine's is a compilation of his lectures on otology given at the New York Post-Graduate School and Hospital. It is written, therefore, for these classes of readers, the post-graduate student in otology, the undergraduate and the gen-

eral practitioner. It cannot be recommended too highly. It is clear, concise, yet thorough and should find its way to every physician's library.

Fistula of the Anus and Rectum. By CHARLES JOHN DRUECK. F. A. Davis Co. Price $3.50.

The author covers his subject thoroughly in a book of 310 pages of easy reading. He helps to explode an idea of long standing when he says that the majority of fistulae are not tuberculous and that tuberculous patients may have non-tuberculous fistulae and vice versa. He emphasizes an important point in saying that most fistulae could be prevented if the original perianal or ischiorectal abscesses were properly handled. The technique of incision and after care of fistula is given considerable attention and, for the most part, follows generally accepted principles. In a simple fistula, the author sometimes excises the entire tract, bringing down a cuff of healthy mucous membrane to the anal skin, after the method of Elting. Complications of fistulae and accidents of poorly planned operations are taken up in detail and include the technique of repair of an incontinent rectal sphincter.

The Art of Surgery. By H. S. SOUTTAR. New York, 1929. Paul B. Hoeber, Inc. Price $12.00.

Accepting Webster's definition of art as "The employment of means to accomplish some desired end," the author presents surgery as being essentially an art. "It demands of those who would pursue it a combined dexterity of hand and eye, and an instinctive perception of values which are characteristic of the true artist." Nevertheless, the practice of surgery rests upon a mass of knowledge which the student must attain. This book is an attempt to present such knowledge in simplified form with attention to fundamental principles rather than details. Very little space is given over to descriptions of operations, the text concerning itself with the underlying pathological and physiological aspects of disease and the principles of surgical treatment.

The book itself is extremely pleasing. The typography is excellent. A wide margin is filled with thumb nail sketches and paragraph headings. Sufficient space is left for the student to add his own marginalia, either as additional sketches or notes. This text if properly used will serve as an excellent reference book and guide for the elementary student of clinical surgery.

A Textbook of the Practice of Medicine. By various authors, edited by Frederick W. Price. Third edition. Humphrey Milford, Oxford University Press. Pp. 1871. Price $11.50.

It is a pleasure to review this new edition of a standard English textbook of Medicine—a volume perhaps not as well known in this country as its excellence deserves but one justly creditable to the London School of Medicine from which it comes. The book is a coherent exposition of the broad scope of practical medicine, dealt with by authors who have made a special study of its various branches. It is so arranged that little or no repetition occurs, and yet through frequent cross-references important correlating data are always available. Too much cannot be said for the excellent introductory discussions which outline the general principles of anatomy and physiology at the beginning of the major sections, or for the lucid yet concise diction for which the English textbooks are well known.

Moreover, in the general arrangement of the book, there are some features which are quite unfamiliar in our own standard texts. There is much that can be said for the grouping of maladies upon an anatomic basis with a discussion in the text of variations due to etiology rather than reference to the general section upon the underlying disease. Thus, Tuberculosis and Syphilis of the Larynx are to be found under diseases of the respiratory system; and in the section on each of these diseases only specific page reference is made to the local manifestation. Less advantageous is the separation of pneumonia from the infectious diseases to include it among the diseases of the lungs. Somewhat confusing also is the failure to sharply differentiate signs and symptoms, while little detailed analysis of the laboratory data is given in many cases. Though it is the privilege of authors of a textbook to be didactic, nevertheless one cannot help but feel that considerable value would be gained by the addition of a few selected references to current literature.

It is impossible to consider the individual sections of the book, but attention should be directed particularly to the discussion of the Tropical Diseases and to the diseases of the nervous system. The inclusion of common skin diseases in concise simplified form is of great value, while the excellent discussion of Psychological Medicine emphasizes the proper relation of this specialty to general medicine and fills a much needed place in a textbook on Practice. The volume is well planned and consistently carried out, and should be seriously considered both by the student and practicing physician.

La Perméabilité et les Obturations Tubaires. (Stérilité Infections Salpingiennes Chirurgie Tubaire.) By CLAUDE BECLERE. Préface by Prof. P. Lecène. Paris. Masson et Cie Éditeurs, Libraires de L'Académie de Médecine 120, Boulevard Saint-Germain. 1929. Price 50 Fr.

This is a monograph of 250 pages, including bibliography, on the use of lipiodol injections in the diagnosis and treatment of tubal obstructions. It is a sequel to a previous monograph by this same author on x-ray diagnosis in gynecology which appeared in 1928 and was reviewed in this JOURNAL. The details of technique are practically speaking unchanged and seem quite adequate. The author insists on the necessity of pressure control as of absolute necessity in guaranteeing the safety of the procedure. His limit of 300 millimeters would be considered rather high by most American gynecologists. He is also apparently a little more radical in

his willingness to make the injection within a relatively short time after the subsiding of acute tubal infections; neither does he exclude patients with endocervicitis as far as can be determined from a careful study of his book. In spite of this, however, he reports only one recrudescence of infection in 270 patients. Apart from its use in general gynecologic diagnosis as discussed in the previous monograph the injection of lipiodol is of greatest interest in cases of sterility. Here it permits a measurement of the uterine cavity, gives an accurate diagnosis of the state of the tubes and often constitutes in itself a therapeutic measure of considerable value. Béclère distinguishes four types of tubal anomalies by this means:—obstruction at the cornu, obstruction at the ampulla or infundibulum, obstruction of the latter type with cystic dilatation resulting from muscular atony and including all degrees of hydro- and pyosalpinx, and cases without obstruction, but showing decreased patency.

He believes that operative treatment is most successful in the simple obstruction at the infundibulum where the structure of the tube has remained normal and there is therefore no dilatation.

Taken altogether the book constitutes a noteworthy contribution to a difficult and controversial subject. It calls attention to a new and safe method of investigating cases of tubal sterility which should always be employed before resorting to operation.

Handbook of Gynaecology. Edited by Dr. W. Stoeckel, Berlin. Volume 5, Part 1. Munchen: J. F. Bergmann, 1929.

This handbook of gynaecology represents the third newly edited and enlarged edition of Veit's classical work under the same title now fully revised by numerous collaborators under Stoeckel's editorship. Previous volumes of this edition have been favorably reviewed in the JOURNAL. The present volume is in two sections. The first by Dr. Erwin Kehrer of Marburg deals with the vulva and its diseases and is illustrated with two hundred and eighty-eight figures in the text, partly in colors. The second section, by Dr. R. T. von Jaschke, of Giessen, deals with uterine displacements and motor anomalies and is illustrated with one hundred and eighty-one figures in the text. In both sections there are elaborate bibliographies. Seven more volumes of this monumental work remain to be published, which, when completed, will constitute one of the most encyclopedic works on its subjects in existence. It is needless to comment on the elaborateness and painstaking detail of this typical work of Teutonic scholarship and industry.

Disorders of the Sexual Function in the Male and Female. (A Practical Treatise.) By MAX HUHNER, M.D. Third Edition. Published by F. A. Davis Co., Publishers, Philadelphia. 1929. Price $3.00 net. 342 pages.

The subject which Huhner has chosen to write about is a difficult one to discuss. The scarcity of articles on these topics and the very indefiniteness of many of the conditions which come under this head make the author's task a hard one. The fact that there has been a demand for a third edition of this book indicates that it meets a definite need.

In it Huhner discusses masturbation, impotence, frigidity, various other abnormalities of the sexual function, enuresis, continence and dysmenorrhoea. His opinions are based upon a large experience in the management of such cases, and his methods of treatment have in his hands been quite generally successful.

The writer's ideas are simply and clearly expressed, though with considerable repetition, even in the same chapter. There seems to the reviewer to be a certain element of naïveté about them, and a tendency to portray these conditions as much simpler affairs than they really are. However the book should fill a place now empty, and should prove valuable particularly to the general practitioner who wishes some guide in the treatment of these distressing cases.

Herman's Difficult Labour. Revised by Carlton Oldfield, M.D., Lond., F.R.C.S. Ing., F.R.C.P., Lond. New York: William Wood and Company, 1929. Price $5.50.

For thirty-five years this original monograph by Dr. G. E. Herman of Leeds has been before the medical profession as a classic guide for students and practitioners of obstetrics. In this seventh edition the chapter on eclampsia has been almost entirely rewritten in the light of modern treatment. Two short chapters have been added on the mitigation in labor and on the prevention of puerperal sepsis. The uses and limitations of the x-ray in the diagnosis of obstetric conditions are discussed. The text is still illustrated with the one hundred and ninety-seven admirable illustrations of the preceding editions, to which have been added eight radiographic plates, each with an interpretative key. Though this book on dystocia and other complications of parturition represents fundamentally the principles of British practice its merits should appeal equally and advantageously to American obstetricians.

Treatment in General Practice. By HARRY BECKMAN, M.D., Professor of Pharmacology, Marquette University Medical School, Milwaukee, Wisc. Octavo volume of 899 pages. Philadelphia and London. W. B. Saunders Company, 1930. Price $10.00.

The author of this work points out in his Preface a serious fault in the teaching of therapeutics in this country, namely our system of presenting the subject in a general way to junior students before they are able to appreciate it, while neglecting the consideration of treatment in favor of diagnosis in our final courses on clinical medicine. In order to remedy this deficiency he has prepared this volume made up of full discussions of the special therapeutic measures applicable to a very complete list of diseases,

including not only the diseases of internal medicine, but also those of the nervous system, of the skin and obstetric disorders. In these discussions it is not his object to cover the whole ground of practical management but rather to present a critical evaluation of the more essential methods of treatment,—both those that are generally accepted and those proposed but not as yet generally accepted. There are brief and admirably sound preliminary notes upon practical details,—"But" (to quote from the text) "these things merely in passing—it is the use of drugs and biologicals only that falls within the province of this book." He devotes himself principally to presenting and commenting upon conclusions from published reports in such questions as the surgical excision and the serum treatment of anthrax, the serum treatments of meningitis, diphtheria, and all other diseases for which specific therapy exists. His method of presentation is illustrated in his consideration of the vexed question of the treatment of pneumonia; the most important communications are quoted at length, impartially, and without a verdict. Other less well-known methods are mentioned such as Kyes' chicken serum and mercurochrome in pneumonia. In other cases, special methods of administration are described with all necessary detail, such as the rectal and intravenous use of sodium salicylate in rheumatic fever. Ectopic diseases, such as kala azar and leprosy, as well as certain less known clinical entities, such as epidemic pleurodynia, reflect by their presence the painstaking completeness of the work.

To characterize the particular field of usefulness of this book, it may be said that it is one to which any student or practitioner may well turn to find a summary of all special methods of treatment, both those that are well-established and also those that at present are seriously advocated by their authors but are neither established nor disproved. In the description of uncertain questions the author merely presents the evidence without prejudice. His own comments, however, when they do appear, are uniformly judicious. In fact, it is the reviewer's opinion that he has been too modest and that the book would have been still better if he had expressed his own judgments more freely. Apparently, however, he preferred that the work should be primarily a compilation of selected evidence, and as such it will stand as a useful contribution.

Practical Medicine Series (1929) General Medicine. Edited by GEORGE H. WEAVER, LAWRASON BROWN, GEORGE R. MINOT, WM. B. CASTLE, WM. D. STROUD, RALPH C. BROWN. The Year Book Publishers. Chicago. 829 pp. Price $3.00.

The obvious aim of this series of volumes is the presentation at yearly intervals of summarized information regarding the important contributions to general medicine in the preceding months. The present edition follows the outline of former ones in being divided into five main divisions dealing with Infectious Diseases, Diseases of the Chest, Diseases of the Blood-forming Organs, Diseases of the Heart, and Diseases of the Gastro-intestinal Tract. Of great value is the correlation of individual reports from different sources so edited and arranged as to give a comprehensive view of the whole subject. Clarifying editorial notes remind the reader of important earlier information. Sufficient detail is given for the summaries to be of practical use in themselves, and adequate data is available for reference to original sources. For the general practitioner who is willing to let the vast array of literature be sorted, condensed and rearranged for him by men of national reputation, it is hard to imagine a more concise or convenient means to keep abreast of medical progress than is presented by this book.

BOOKS RECEIVED FOR REVIEW

Annals of the Pickett-Thomson Research Laboratory. October, 1929, Volume V. Published by The Williams and Wilkins Company in America and Baillière, Tindall and Cox in England. 392 Pages.

A Textbook of Physiology for Nurses by William Gay Christian and Charles C. Haskell. Second Edition. Published by C. V. Mosby Company. 152 Pages. Price $2.00.

Essentials of Medical Electricity by Elkin P. Cumberbatch. Sixth Edition, Revised and Enlarged. Published by C. V. Mosby Company. 443 Pages. Price $4.25.

The Mechanism of the Larynx by V. E. Negus, with an introduction by Sir Arthur Keith. Published by C. V. Mosby Company. 528 Pages. Price $13.50.

Medical Insurance Examination: Modern Methods and Rating of Lives by J. Paterson MacLaren. Second Edition Greatly Enlarged. Published by William Wood and Company. 646 Pages. Price $10.00.

Transactions of the American Gynecological Society. Volume 54, 1929. Edited by Floyd E. Keene. Published by the C. V. Mosby Company. 284 Pages.

Surgery of the Lung and Pleura by H. Morriston Davies. Published by Humphrey Milford, Oxford University Press. 355 Pages. Price $8.00.

Symptoms of Visceral Disease by Francis Marion Pottenger. Fourth Edition. Published by the C. V. Mosby Company. 426 Pages. Price $7.50.

Getting Well and Staying Well by John Potts. Introduction by J. B. McKnight. Second Edition. Published by the C. V. Mosby Company. 221 Pages. Price $2.00.

Nursing in Emergencies by Jacob K. Berman. Published by the C. V. Mosby Company. 160 Pages. Price $2.25.

A Text-Book on Orthopedic Surgery by Willis C. Campbell. Published by W. B. Saunders Company. 705 Pages. Price $8.50.

Treatment in General Practice by Harry Beckman. Published by W. B. Saunders Company. 899 Pages. Price $10.00.

A Social Worker's Notebook by F. Whipple Pope. Published by the Mansfield Printing Company. 102 Pages. Price $2.00.